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THE

ACCOUCHEUR.



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THE
ACCOUCHEUR,

A TREATISE

ON

PROTRACTED NATURAL LABOURS;

SUSPENDED ANIMATION IN NEW-BORN INFANTS;

AND

UTERINE HÆMORRHAGE

AFTER THE BIRTH OF THE CHILD.

WITH

ILLUSTRATIVE CASES.

BY JOHN CRAIG,

SURGEON, PAISLEY.

GLASGOW:

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P R E F A C E.



THE subject of midwifery has been so often and so ably treated by men of genius, learning, great industry, and extensive opportunities for observation and practice, that almost any one, at the present day, may well feel reluctant to give publicity to his views and experience, even when he really deems they would be a general benefit to the parturient female, as well as to the accoucheur. From these considerations, we have to assure the public, that nothing short of a deep conviction, grounded on considerable experience, of the usefulness of the few following observations could have induced us to come before the reading world, and especially that portion of it connected with the medical profession, which forms a class so well qualified to judge of the merits or demerits of every production connected with the healing art. The laborious nature of our avocations, too, has always engrossed so much of our time, that little part of it has been left for the cultivation of those graces of style which adorn the compositions of more practised writers. The want of clear and classical expression, every one knows, is a great drawback to the favourable reception of any publication, and

though these defects may be found to run throughout the following observations, it is hoped they have at least to recommend them, their truth, honesty, and usefulness.

Being conscious that the absence of beauty of style is not inconsistent with the display of professional skill, when we contemplated the publication of this work, we felt persuaded that a confession of the want of the former would not deprive us of a claim to the possession of the latter; but farther reflection has convinced us, that when any innovation on long-established practice, and deep-rooted prejudices is attempted, no apology the author can plead will, at times, secure the candour of the professional reader, and prevent the merits of the practitioner from being visited with the blame that is only due to the deficiencies of the writer. In self-defence we might therefore have felt ourselves justified in at present veiling our name in the method so widely practised by the literary world.

The following will show how little confidence can be placed in professional men, as well as others, even when the discovery is of paramount importance.

That learned and elegant writer, Dr Southwood Smith, in his useful work, entitled *Philosophy of Health*, chapter, "Circulation of the Blood," states, "Contemporaries are seldom grateful to discoverers. More than one instance is on record, in which a man has injured his fortune, and lost his happiness through the elucidation and establishment of a truth which has given him immortality. It may be that there are physical truths yet to be brought to light, to say nothing of new applications of old truths, which, if they could be announced and demonstrated to-day, would be the ruin of the discoverer. It is certain that there are moral truths to be discovered, expounded, and enforced, which, if any man had now penetration enough to see them, and courage enough to ex-

press them, would cause him to be regarded by the present generation with horror and detestation. Perhaps, during those eight years of re-examination, the discoverer of the circulation sometimes endeavoured in imagination to trace the effect, which the stupendous fact at the knowledge of which he had arrived, would have on the progress of his favourite science ; and, it may be, the hope and the expectation occasionally arose, that the inestimable benefit he was about to confer on his fellow-men, would secure to him some portion of their esteem and confidence. What must have been his disappointment when he found, after the publication of his tract, that the little practice he had as a physician, by degrees fell off. He was too speculative, too theoretical, not practical. Such was the view taken even by his friends. His enemies saw in his tract nothing but indications of a presumptuous mind, that dared to call in question the revered authority of the ancients ; and some of them saw, moreover, indications of a malignant mind, that conceived and defended doctrines which, if not checked, would undermine the very foundations of morality and religion. When the evidence of the truth became irresistible, then these persons suddenly turned round and said, that it was all known before, and that the sole merit of this vaunted discoverer, consisted in having circulated the circulation." This great man, however, lived to attain, in the medical profession, the summit of reputation.

In Dr Baron's *Life of Jenner*, he states, " There cannot be a doubt that the behaviour of Dr Pearson was of any thing but a creditable character. Dr Pearson, on his examination, showed that Dr Jenner knew little about the matter of vaccination." He states further of Dr Jenner—" that such a person should from many receive discouragement, and meet with ridicule while prosecuting his inquiry, and be treated with disparagement, and robbed of his merits afterwards, is

too true. Yet such has always been the fate of discoverers. Such was the lot of Newton."—*Medico-Chirurgical Review*, Oct., 1838.

These quotations, with the more recent attack of Dr Churchill on Dr Hamilton, will, we trust, sufficiently show that some risk is run in openly avowing a practice at variance with professional prejudice; for if men so magnanimous have been attacked and injured by those who scarcely know what improvement means, one in our sphere, who has comparatively so little claim to extended publicity and gratitude, would, unless some precautionary steps were taken, be almost annihilated, and our name obliterated from the list of those who wish to do good.

The learned Editor of the *Medico-Chirurgical Review*, whose literary and medical acquirements, if equalled, are surpassed by none, must be well acquainted with these paralyzing attacks of professional men—on those whose daily aim is to improve the condition of their species; yet he states in his review of Dr Granville's work, "We regretted to read the following passage in the preface," 'Editor.' Dr Granville in this preface states, "I address it (the volume) in an especial manner to the general reader, rather than to my professional brethren." No doubt it is the desire of the worthy Editor to have things done as they should be, and unquestionably it would be an auspicious day for mankind, if professional and scientific men would acknowledge and encourage improvement from whatever source it may spring.

From these considerations then, we address our volume to every class of readers, but in an especial manner to our medical brethren, and the childbearing woman. However much our professional friends may be opposed to innovation in the practice of their art, without the sanction of some great name, we urgently ask them, simply, in the first place, to

read and study our small volume ; then, we doubt not, they would enjoy, perhaps, for the first time in their lives, what ought always to stand high with medical men, in submitting their observations and reflections to practice, the conscientious approval of their own minds. But from the few testimonies we have quoted, as well as from our own personal knowledge, we have misgivings regarding our medical brethren. We are not afraid that the subject will be altogether neglected, for there will be always a few generous minds to espouse a good cause ; but by strong opposition, that which might prove generally beneficial in a month may require many years.

All we anxiously request of the parturient woman, and those who have a fellow-feeling with her, is to peruse these observations and cases with great care, and the self-evident facts there related will at once satisfy them regarding their truth and usefulness. We never imagine that the childbearing woman is to dictate to her accoucheur ; her only duty is to ascertain how far he is acquainted with, and fully understands a method of treatment so well calculated to save protracted suffering in childbearing, and at the same time obviously to lessen the risk of ill health and loss of life either to mother or child. The observations and cases under the heads, Suspended Animation and Uterine Hæmorrhage, are equally important, and should be duly and deeply studied. Every accoucheur, whoever he may be, that is aware of this acquired knowledge of his patient, will endeavour to make himself acquainted with every form of information that is within his reach regarding the state of his patient. No other method that we can conceive can speedily extend the benefits of the observations to the parturient woman.

If these combinations of study, knowledge, and good feeling, co-operate in the application of the means we have

advised, we fearlessly state that the result will be as noticed in the following observations.

Nothing but a knowledge that the accoucheur and his parturient patient have harmoniously and successfully engaged in the mode of practice we have advised, can remunerate us for the anxiety we have experienced, and the care we have taken at the bedside of the childbearing woman, for the purpose of lessening what appeared to us unnecessary suffering, and its consequences, impaired health and loss of life.

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THE ACCOUCHEUR.

CHAPTER I.

PROTRACTED NATURAL LABOURS.

SECTION I.—*Forms of Protracted Natural Labour.*

UNDER the designation of protracted natural labour, are comprehended those forms in which the pelvis is of such dimension and capacity, as to allow a child of the usual size to pass; and when the presentation is of such a kind as to permit the passage by the ordinary efforts of the expulsive powers, but in which, from some other obstructing cause, the period of delivery is delayed.

When the pains, in labours of this description, continue ineffectual for a few hours, say three or four, they indicate them to be of that kind which at once come under the designation of protracted natural labour; for though its short duration may seem not to admit of the epithet protracted, the inefficiency of the

pains characterizes the nature of the case, and calls for the employment of such means as will render the pains effective.

We will not occupy much time here to defend the propriety of embracing so many forms of labour under the above denomination, as every writer seems to use the terms which best suit his purpose, and that coincide most closely with his own peculiar views; our object is convenience and simplicity. At the same time, it may be urged, perhaps, with some degree of propriety, that those labours in which delivery is generally effected by the usual operations, ought, without any regard to the kind of presentation or duration of labour, to be classed under the head of natural labour, though protracted.

Gardien, Baudelocque, and others, seem to entertain opinions on this point somewhat similar to our own. They do not consider the labour to be preternatural, though the nates, the feet, &c., present, provided that it terminates without the extraordinary assistance of the accoucheur.

In the definition of natural labours given by Dr Burns and others, the head presents in a certain position, and the labour does not extend beyond twenty-four hours.

According to the first authorities, any other presentation than that of the head, which is capable of passing, and does pass through the pelvis without any

extraordinary assistance of the accoucheur, is classed under the head of natural labours; but, when extraordinary assistance is required, the labour is styled preternatural.

According to the second authorities, a labour which extends to less than twenty-four hours, is classed among natural labours; but, when it extends to a longer period, it is at once ranked among tedious, lingering, powerless, or instrumental labours, just as the imagination of the accoucheur may suggest the term he employs.

Now, it appears to us all but self-evident, that when a labour comes under the designation of natural labour, and is protracted solely from a morbid condition of the expulsive apparatus, the name should not be changed, however extended the duration of the labour may be, or whatever may be the means employed for effecting delivery; for it is incontestable that, in labours very similar to each other at commencement, some of them will, by the difference of treatment employed by the several accoucheurs, be converted into preternatural, and others into tedious or powerless labours, which, by the use of more appropriate means, might all have terminated naturally in a few hours. Therefore, the title of protracted natural labour is sufficient to characterize them, and it is improper to cover the ignorance of the accoucheur, by giving to the labour a name which warrants him at least to deprive the infant of

existence, and to render precarious the life of the mother. No doubt, the manner in which the labour terminates should be taken into account in characterizing its nature; for instance, a case of protracted natural labour, of so many hours' continuance, which required the use of instruments to effect delivery. In this manner, all forms of labour which come under our designation may be sufficiently distinguished.

Strictly speaking, there are comparatively but few cases that should be ranked under the head of mere natural labours; the great proportion of them being less or more protracted from the causes already noticed. In proof of this, we doubt not to be sufficiently able to satisfy the most scrupulous inquirer, that in all labours free from morbid or organic obstructing causes, delivery is effected safely, speedily, and comparatively with facility. And we trust also to be fully able to show that, in all cases of protraction, such as are under consideration, by the use of appropriate means, the causes of delay may be obviated, and the delivery effected in a few hours.

At first glance, at a department of practice apparently so limited and simple, the accoucheur will most probably intuitively conclude, that in such forms of labour, the best advice and the best remedy are patience; and that a work pretending improvement in the management of such cases does not deserve perusal. However, let him call to mind the tedious hours

he spends at the bedside of his suffering patients, when sleep is banished from his eyes by an anxiety of mind arising from the perplexity of the case whose management he has faithfully undertaken, and he will at once acknowledge that improvement in such cases is very much wanted. But, in a particular manner, when, on reflection, he calls to remembrance the dreary hours and even days—the dreadful suffering, the imminent danger, and the fatal terminations which occasionally take place, to both mother and child in the very forms of labour under consideration—and to the contemplation of which his most serious thoughts have been but too little directed—he will pause, he will consider the deep obligation he lies under, to ponder well upon any mode of treatment which has for its object the averting of consequences so appalling. Moreover, in order to corroborate what we have just advanced, let him consult the records of the best conducted lying-in hospitals, as well as those of private practitioners, and he will find that the duration of severe labours, the number of women who die in childbed, and the number of still-born children, are much greater in these forms of labour than in all the others put together; and, from the same sources, he will find, that in by far the greater proportion of childbed cases, the head presents; and that in such presentations the use of the perforator is, by several great authorities, but seldom employed. In the Maternité, at Paris, the perforator

was used only sixteen times in upwards of twenty thousand cases; and the celebrated Dr Dewees of Philadelphia, in more than three thousand deliveries, did not use it once. Our object at present is, not to consider the advantages or disadvantages of a practice in which the perforator is so seldom employed, but to ascertain the probable extent to which the pelvis is so narrowed that it will not allow a child of the usual size to pass; and we consider, the two authorities we have given show, in a very unequivocal manner, that the pelvis is very seldom so narrowed that it will not allow the delivery of a living child.

SECTION II.—*Opinions and Practice of several Accoucheurs.*

Dr Merriman, Dr Collins, and many others, found it necessary to employ the perforator more frequently than the above authorities. Dr Merriman in 2947 cases, used the perforator 9 times; and Dr Collins in 16,654 cases, employed it 118 times. So frequent an application of so fatal an instrument by so distinguished an accoucheur as Dr Collins startles us not a little, particularly when we are told that it was employed more frequently than the forceps.

Although Dr Collins has put his mode of practice on record, and although it is favourably noticed by the medical periodicals; yet we trust that neither he, nor any one else, will long continue the same course. For we trust it is satisfactorily shown above, that, in

protracted labours, the cause of delay is but seldom from a narrowing of the pelvis, or an unusual size of the child; and to show that the perforator is frequently employed, not from a deficiency in the capacity of the pelvis, but from a morbid condition of the expulsive apparatus alone, let the following suffice.

In the *Midwifery Reports* of the Westminster General Dispensary for 1781, by Robert Bland, M.D., it is stated, that of 1897 women delivered under the care of the Dispensary, 17, or 1 in 111, had difficult labours; in 8 of these, or 1 in 236, the heads of the children were lessened. In a foot note it is stated, that two of the women whose children's heads were lessened, had since been delivered of full-sized healthy children. This *Report* shows, first, the mournful extent of the destruction of infant life, and that in two cases at least the pelvis were of full capacity.

Dr Merriman, in a very independent and interesting manner, gives an account of 2947 cases of labour, in which 128, or 1 in 22, of natural presentation, the labour lasted more than 24 hours. In 9 cases, or 1 in 328, the perforator was employed; 7 times on account of distortion of the pelvis; 2 times in very lingering labours. To what degree the distortions extended is not so much as hinted at, but from what we have stated above, and from our own experience, we can scarcely admit that they could be all of the description to prevent a child of the usual size to pass

with strong efficient pains. Be this as it may, two of the children's heads were perforated on account merely of the labours being very lingering. In 21 cases, or 1 in 140, the forceps or vectis were found necessary; and in 15 of these they were used from want of expulsive power in the uterus. Of the children brought into the world by the forceps, no other cause could be assigned for the death of three of them, than the length and difficulty of the labour. It is also stated, that from the severity of the labour, 9 cases of presentation of the nates were born dead, and 6 in feet ditto.

This statement, regarding the use of the forceps, shows they have been frequently applied; and it deserves to be noticed, that in no less than 15 cases they were required on account of a morbid condition of the expulsive apparatus, or what is termed want of expulsive power of the uterus; but this want of expulsive power never exists except when disease is present. In the forceps cases, and those of presentations of the nates and feet, the labours appear to have been long protracted; and we hope to be able to show, that by an appropriate treatment, such cases may terminate very differently. It deserves to be particularly noticed, from what we have by and by to advance, that in the great proportion of 128 cases, or 1 in 22 of natural presentations, the labour lasted more than 24 hours. How many hours these labours continued, we are not

told, but most probably some of them would extend to 40 or 50 hours.

The individual who gives so excellent an account of his experience in private practice, deserves well the thanks of the profession. And we are of opinion, that were every accoucheur, who has charge of a lying-in hospital, obliged, by the laws of the institution, to publish annually a report of the cases delivered under his care, similar to the method so well executed by Dr Collins of Dublin, it would be generally useful.

By the above few remarks and extracts, we have endeavoured to show, that the great portion of the accoucheur's time, and the parturient woman's sufferings, are connected with the forms of labour which we are at present considering; and that the necessity for the use of instruments, in so many deliveries of so fatal a description, is occasioned by other causes than a narrowing of the pelvis, or unusual size of the child; and that these causes, we hesitate not to affirm, are almost always confined to the expulsive apparatus themselves, and are remediable.

But, as gentlemen of great and deserved celebrity differ widely in their opinions regarding the propriety and impropriety of interference in protracted labours, when there is no present danger; we shall notice a few of those whose views deserve to be known.

Dr Denman states that "no person in labour ever had a pain depending on her labour which was in

vain." This statement certainly cannot be correct; for after labour pains have ceased to advance the child, they continue to exhaust the woman, and render delivery by instruments necessary. All those pains, therefore, subsequent to the commencement of exhaustion, must have been worse than in vain—they must have been pernicious. Again he says, "whether the labour pains produce an immediate effect or not, it is our duty to wait with patience, provided there be no tokens of danger." This advice can only be admitted as a good one, when it is shown in a satisfactory manner, that no means can be used to improve the nature of such pains; this however is not done.

In regard to the dilatation of the os uteri, he states, "Whether a long or a short time be required for this purpose, it is the duty of the practitioner to abstain from interfering in this part of the process." Drs Hamilton and Burns have shown, we think, beyond all doubt, that interference is particularly called for in such cases, and proves serviceable; and we trust we shall be able to put it still farther beyond dispute. On the topic of difficult labours, Dr Denman remarks, "no means of improving these pains can be depended on." It is true, that to this day, many seem to hold the same opinion; but nothing can be more erroneous, for in no department of the medical art is there a greater certainty of success, than in that of improving the pains in obstinate labours.

Dr Burns acutely remarks, that were there no obstructions to the full operations of the uterus, labour would not be protracted! One would think that a mind so constituted as to announce a fact so brilliant, would have intuitively suggested a probable or certain means of removing such obstructions; but from what he states, even in the last edition of his *Midwifery*, it is clear that he has not yet made a very near approach to a full knowledge of those remedies which should be employed for their removal. His words are, "Some women seem constitutionally to have lingering labours, and in such cases, generally, it is neither useful nor proper to do more than encourage the patient, or preserve her strength."

Dr Ramsbotham observes, "It appears to me that labour pains (properly so called) were intended by the Great Creator of nature, for the wisest purposes;" and a little farther on he states, "they ought not, generally speaking, or on the application of a general principle, to be meddled with. I have," says he, "my doubts whether, except in very rare instances, any attempt should be made to palliate them." These are extraordinary views to be held and promulgated in these days of improvement, by an accoucheur, possessed of public confidence, and having so many of the lives of his fellow-creatures, without control or responsibility, submitted to his care.

It is true, a man is always justified, particularly in

matters of importance, when giving his candid opinion ; but no man ought ever to express the views he has formed on a subject to which he has given but little consideration : which seems to be the case in the present instance, at least as regards a knowledge of this part of obstetrical practice ; for it is evident, that if Dr R. had any thing like a clear idea of the nature of inefficient and exhausting pains, which less or more take place in all protracted labours, he would never have employed language to impress on the minds of others, a mode of proceeding directly contrary to what at least we have found universally advantageous ; that is, the application of means for the relief of frequent, but ineffectual labour pains. And we entertain no doubts whatever, that the merest tyro, at his first and imperfect trials of the means we shall by and by point out, will corroborate our statement.

Dr Breen does not denominate the labour tedious, till thirty hours have elapsed from its commencement. Should this worthy Dr intend any important alteration, either good or bad, after changing the name of the labour to that of tedious, certainly no one can accuse him of alarming his poor suffering patient, by hurriedly informing her, that the name of her labour is now changed, having continued thirty hours ! Such an announcement could have no effect in assuaging the torturing pains of thirty hours' duration ; and had the Dr employed his time less in uselessly fixing the

periods and names of labours, and applied it more assiduously in ascertaining the means suited to the prevention of the extension of labours to so frightful a duration, it would be more consoling to the parturient woman.

Dr Merriman makes some good remarks on protracted labours, but recommends nothing on which he places dependence for promoting the delivery within a given time.

SECTION III.—*Observations elicited from the above.*

From the views and observations of the authorities just mentioned, we would be led to conclude, that the fate of the childbearing woman, in regard to the duration and violence of her labour, was in a great measure fixed by Divine edict. Now we expect to be fully able to show, that the protracted sufferings of the parturient woman arise from incidental morbid causes, and have nothing to do with the sacred declaration of the Great Creator. And, moreover, that these morbid causes are more under the control of remedial means, than any other violent and dangerous disease to which mankind are liable.

The ambiguity and pernicious consequences which often arise in attaching meanings to terms and expressions which do not belong to them, can seldom be more conspicuously met with, than in the Scripture phrase, "in sorrow thou shalt bring forth children." That protracted suffering in child-bearing, would be the lot

of fallen woman, is not so much as even implied in this declaration. And, indeed, were it so expressed, the truth, that the Great Creator was its author, might well be questioned; for who could for a moment suppose, that He who created all things so admirably to fulfil the end intended, would construct and destine the uterus to act differently from other organs somewhat similarly circumstanced in their operations: the bladder and intestines receive, retain, and expel their contents with regularity and facility, and when the contrary takes place, disease is to some degree present. Besides, had the decree gone forth, that women in child-bed would be tortured for hours and days with unmitigable pains, there would be some approach to a similar suffering in all; but we know that this is not the case, for many women have short and comparatively easy labours, yet who would presume to say that these women had not sorrow in childbearing. Days and nights are always, in some degree, spent in silent contemplation by every pregnant woman, respecting her great and approaching crisis, and the first thrill of pain, intimating the commencement of labour, pervades with unique impulse, every limb, every nerve—the very soul itself.

SECTION IV.—*The natural or healthy state of the Uterus during Parturition.*

Having made these few preliminary observations, we shall proceed, for the sake of connexion, to con-

sider the natural state of the uterus during parturition.

Even in the fallen condition of man, it is evident that he is naturally free from disease though subject to it. In this wholesome state, all his organs seem to perform their functions with efficiency. Thus the uterus, in the parturient woman, effects delivery in that expeditious and uniform manner, which is observed by the other organs of the body, in the performance of their multifarious functions. This organ, by its own native powers, receives, retains, and ultimately expels those contents on which it is destined to operate; and these various processes are performed with a regularity and effect, which are always the result of those operations carried on under the influence of the uninterrupted laws of nature.

The powers by which the uterus expels its contents, seem to be muscular, and although anatomists are not exactly agreed regarding the distribution and direction of the muscular fibres, yet we think, that from the manner the uterine actions are carried on during one of the most natural labours, there can be little doubt that the arrangement of these fibres is both longitudinal and circular, or perhaps obliquely transverse. The longitudinal fibres most probably being intended for expulsion, and the oblique to give proper direction to the child as well as to assist in the expulsion; it is very clear, that unless these circular or oblique fibres

were to act uniformly on the body of the child, and keep it in the centre of the uterus, while the longitudinal ones are propelling it onwards, the labour would not be so expeditious as we meet with in all those deliveries in which there exists no interruption.

Every accoucheur, even in this country, must have had sufficient evidence to convince him of the truths we have now stated, that women occasionally have very expeditious labours, and the pains accompanying them are frequently so mild, as to deceive the parturient woman herself, that her child was about to be born. And if we can believe the testimony of travellers and historians, child-bearing in many countries is robbed of all its severities—the children being generally born without difficulty or delay. We are informed too, that among the savage tribes, the parturient woman seeks out a solitary place in the woods to which she retires, alone, bears her child, and returns home with it in her arms. All such cases are so many instances of the natural state of the expulsive apparatus in the child-bearing woman, and completely nullify the erroneous notions that violent continued suffering is natural and intended.

These few observations on the natural state of the uterus during parturition, we have thought proper to make, in order to enable us the more easily to consider that which now more properly comes under our observation.

SECTION V.—*The unnatural or morbid Condition of the Uterus in Parturition.*

This morbid state of the expulsive apparatus is the cause of many hours of grievous suffering to the woman in childbed, to which she would not be subject, did this condition of the uterus not exist, or even were it removed when present. But this is not all; it is, as we have seen, the cause of the greatest amount of death which happens to the childbearing woman and her offspring. This sad catastrophe has occurred so frequently for ages that have gone by, that one is struck with astonishment when, after his research in every accessible quarter, no definite information is to be found regarding the true nature of this mischievous cause of suffering and death, nor of suitable obviating means.

In the following pages on this topic, we shall endeavour to give, as clearly as possible, our opinion of the nature of this vitiated state of the uterus; and also point out the means which we have found more effectual in obviating these morbid causes of suffering, than at first we anticipated.

The organs concerned in parturition are as subject to disease in the pregnant state, as other organs or tissues of the body; and just in proportion to the extent of disease in the parts affected will be the delay, the difficulty, and danger attending the labour. Thus,

it will at once be evident to every one, that however natural a labour may be in every other respect, it will be rendered protracted by a diseased state of the expelling powers.

We will see, from these considerations, how important it is to be well acquainted with the nature of those causes which retard delivery; for nothing but a total want of this knowledge could have induced those highly reputable authorities who have treated this subject, to advise and impressively enjoin their readers and hearers to abstain from the use of means for the relief of suffering so protracted, than which none is more depressing, and none more certainly remediable. We say remediable, because in several hundreds of successive cases, not one of them resisted the salutary influence of the means employed for relief; therefore we consider ourselves justified in concluding, that a uterus which is capable of retaining and nourishing a child to the full period of utero-gestation, is at the same time capable, or may be put into a state so as to render it capable, of expelling the child by the natural efforts. This result will be found to be so generally the case, that it may be set down, according to the usual mode of speech, as a universal truth. This view of the subject may be questioned, on the ground, that other organs somewhat analogous, as the bladder, formerly referred to, are often, after an attack of severe disease, a considerable time before they recover

their usual efficient powers ; and like the uterus, when similarly circumstanced, incapable of expelling their contents, which renders it necessary to have recourse to instrumental aid. But as far as we can apprehend the natural disposition of the uterus, its usual mode of action seems to be, that as soon as it is disturbed, from whatever cause, to a certain degree, it commences to expel its contents, if the expulsive powers have not been so much previously weakened, as to render them inadequate to accomplish this end. We see these powers and properties of the uterus well illustrated in cases of abortion, premature labours, and in those which have come very near the full period. Indeed, when the expulsive powers of the uterus are really excited into action, and these powers properly regulated by the use of appropriate means, it will be extremely seldom that a case can be brought forward to invalidate the statement we have just made.

Thus we have endeavoured to show, that in the natural state of the expulsive organs during child-bearing, no remedial means are required, and that it is only in the unnatural or diseased condition of these parts, that the interference of the accoucheur is demanded. This morbid condition of the expulsive apparatus, engaged our deepest thoughts for several years, when attending and operating at the bedside of the parturient woman, during numerous and varied

forms of protracted labours. The conclusion we ultimately came to, regarding the causes of delay in such labours, is as follows.

The first cause of delay in protracted labour, is inflammation; the second is congestion; the third, an excess of sensibility; and the fourth is spasmodic. These four obstructing causes to delivery, associated with a deranged state of bowels, are the only distinctions requiring particular notice in the management of these labours. All these retarding causes may be combined in the same labour, but it is not necessary that they should all be present to constitute one of the most distressing and obstinate kind; for sometimes it appears that excess of sensibility alone is the principal obstructing cause.

Before we proceed to point out the symptoms of the several causes of protraction in labour, we shall first shortly assign our reasons for fixing on the number of 423 successive cases of labour, on which the following observations on protracted labours have been founded.

In the *Edinburgh Medical and Surgical Journal* for Oct. 1833, our attention was directed to a report drawn up by Dr Maunsell, accoucheur to the Wellesley Female Institution, Ireland. In this report it is stated that in 423 cases of actual labour in that institution, the labour continued between 12 and 18 hours in 35 cases; between 18 and 24 hours in 24 cases; between

24 and 48 hours in 15 cases ; two cases extended to 60 hours, and one case to 72 hours.

Before we met with this praiseworthy report by Dr Maunsell, our attention had been directed, for a considerable time, to the consideration of the nature and management of protracted labours ; and, as soon as it came under our notice, we resolved on taking the same number of successive cases with a view of comparing the result of our practice with that of Dr Maunsell.

In the 423 cases attended by us, on the principles and views which we had adopted for some time previously, all of them terminated within or in about 12 hours with the exception of two, one of which continued 13 hours, and the other 14 hours after the commencement of labour. It will be seen, that in our cases no instrument was used. It deserves particular notice, that in one of Dr Maunsell's cases, in which the perforator was employed, the woman was well formed, and had previously born four living children.

The perforator was used by Dr Maunsell twice—or once in $211\frac{1}{2}$ cases. One of the women died, the other recovered. The one that recovered had a distorted pelvis, the one that died was well formed, and had previously four living children. Other three cases of death are mentioned by the author.

The number of children dead-born amounted to 43, or one in ten. A considerable number of these were

premature births. Still the number of still-born children must have been very great.

In our cases, we had only one still-born child, and had we been as well experienced in our present mode of treatment then, as we are now—for it was among the first cases—the child, we think, would certainly have been born alive. None of the mothers died.

The report of Dr Maunsell, like that of others of a similar description, shows distinctly, that the great portion of the presentations of the child is such as is capable of passing through the pelvis by the natural efforts of the mother.

SECTION VI.—*Symptoms that indicate the Causes of Protraction.*

We shall now notice a few of the most prominent symptoms which indicate the several obstructing causes which occasion protracted natural labours, and we shall begin with the inflammatory cause.

The principal symptoms to be met with in the inflammatory state of the expulsive apparatus, are heat of skin, flushed face, accelerated pulse, tenderness, and frequently some degree of unusual hardness at the lower part of belly; vagina hot and dry, and generally the os uteri is tender and rigid. Pains frequent and severe, but ineffectual; urine frequently passed. The woman in a few hours becomes very anxious, requesting to know if she will soon be delivered, even

before the os uteri has well begun to dilate. When these symptoms are present, the accoucheur can experience no difficulty what course he should pursue.

The symptoms of congestion are considerably different from those of inflammation, and should be duly studied by every accoucheur. In patients labouring under this form of obstructing cause, the skin is below the natural standard of heat; pulse nearly natural, both in strength and in the number of beats, little thirst, some appetite, at least at commencement of labour. Throughout this form of labour, the patient manifests considerable reluctance to motion, and as the labour advances, she becomes a torpid unwieldy mass, scarcely able to assist herself to turn in bed, or come out of it. After the labour has continued a few hours, the lower part of the belly becomes hard and tender to the touch, and during the pains, the woman utters a dull but plaintive cry. Little urine forms, and the patient has to be urged to pass it. Vagina and os uteri generally cool, and to the touch free from pain. Bowels generally constipated. Pains not frequent, at least at the beginning of labour, but they are very distressing to the patient, and advance the child but very little. It deserves notice, that in labours of this description, and sometimes in the former, there are, during the intervals of regular pains, severe grinding pains in the lower part of the belly.

In those cases in which excessive sensibility pre-

dominates, the principal symptom is severe pain in the back, or lower part of the belly, at each return of the labour pains ; for during the interval, the patient is, in a great measure, free from uneasiness. During the early part of the labour, one particular morbid symptom appears, but as it advances, the skin becomes hot, pulse quick, and a degree of anxiety and restlessness comes on, and although the pains are extremely severe, they produce but little effect in advancing the child. The lower part of the belly, during the intervals of pain, neither becomes hard nor painful to the touch as in the two former states of the expelling powers. The urine is passed easily, and the patient has no particular difficulty in motion. This condition of the expelling organs should be accurately discriminated from the two former, for in some such cases the woman can very ill bear depletion.

The irregular and spasmodic actions of the uterus, although strong causes of protraction in labours, are themselves caused by the three particular conditions of the expulsive apparatus which have just been adverted to ; for without the presence of inflammation, congestion, or excess of sensibility, there would be no spasmodic contractions of the uterus. In this disturbed state of the expelling powers, the muscular fibres seem to assume a retrograde action ; for by applying one hand to the abdomen, over the uterus, externally, during a pain, and the forefinger of the other hand to

the os uteri at the same time, by the first hand the uterus will be found contracted into hard irregular portions, while by the forefinger of the other, it will be distinctly perceived that the head of the child, instead of being propelled downwards towards the os uteri and finger, is really retracted upwards. It is obvious, then, that when the actions of the circular or oblique fibres, predominate over those of the longitudinal ones, the labour must be protracted until the distorted actions are corrected.

The cause of delay in labour is sometimes constipation,—or an accumulation of fæculent matter in the bowels. It is no unusual circumstance in childbearing women, to find, that although the bowels may have been opened even by laxative medicine just previous to the coming on of labour pains, or that during pregnancy they have been regularly open without medicine, there will still remain so great a collection of matter in the intestines, as will operate most unfavourably on the actions of the uterus; especially when these actions have a tendency to be unnatural. Whenever, then, the labour pains are irregular, severe, and inefficient, we have great reason to believe that the bowels are loaded with fæculence.

These are the chief causes of delay in childbed cases, and when they are cautiously, and in proper time removed, the patient will be saved much prolonged suf-

fering. It will be evident, however, to every one, that when these obstructing causes exist to a great degree, and are allowed to continue long after the commencement of labour, without being removed; the strong and ineffectual actions of the uterus, weaken the expelling powers to such a degree, in some instances, as to render them, even when the obstructions are removed, inadequate to the expulsion of the child. This debilitated state may be easily distinguished from the obstructing causes already noticed; for the labour now is in every respect natural, the pains have brought the presenting part of the child to rest on the perineum, the vagina is relaxed and cool, the pains regular, and although inadequate to propel the child through the external parts, yet there is a degree of downward pressure during each pain, such as is met with in simple natural labours.

Now, it will no doubt be said that, if these are really the retarding causes of labour, which have just been noticed, the removal of them must convert the labour into a natural one, when delivery is said to be speedily effected; and this would assuredly be the result, were it possible to render suddenly the parts concerned in parturition analogous to the active state in which they are at the commencement of labour, when no disease exists. But it is impossible to effect this in a few hours; and all that art can do is to subdue the obstructing causes, so far as to convert a labour, apparently destined to continue

to thirty or fifty hours, to one of a duration of ten or twelve hours. It must be understood, too, that when we engage to terminate such labours in ten or twelve hours from their commencement, the pains must be considered as continuing; for in some instances after labour has continued for a considerable time, and even made progress in advancing the child, the pains entirely or nearly cease, for several hours. In such cases, Dr Hamilton estimates the duration of labour from the recommencement of the labour pains. Such cases are but few in number, yet they should be noticed, and we shall in due time give a case in illustration. We entertain no doubt, that the practice pursued in our illustrative cases will be admitted as being perfectly safe. For an approved practice does not consist in the use of all kinds of means which speedily terminate a labour, unless the result be favourable both to mother and child; neither does it consist in great delay, without the use of means; for, by such procedure, there is always considerable danger as regards the safety of the child, and occasionally that of the mother also. But an approved practice consists in the employment of such means as will terminate a labour as soon as possible, so that, at the same time, the mother and child will be in as great or greater safety, than if the labour had been more protracted.

In those cases of labour in which means are required to assist nature in the expulsion of the child, they

should always be, when equally safe, of the description which remove the obstructing causes and excite the uterus to expel the child by the natural efforts, in preference to manual or instrumental aid.

Dr Burns speaks of the application of the forceps as if it were a very simple and easy process; and its being so in his hands is probably one reason why he has not employed his great mind more particularly, in discovering or devising means calculated to supersede so frequent an application of them. For he must no doubt be long since aware, that many worthy and experienced gentlemen in the profession are not so dexterous in the employment of this instrument as he is, and that oftentimes, by the use of it, much mischief of an irremediable kind has been done. It may be thought, from what we have said, that we are among the number who have been unfortunate in applying this instrument; but we affirm, without fear of contradiction, that we have never failed in our repeated applications of the forceps, and that no injury, beyond a mere scratch on the child's head, ever followed the operation.

Dr Burns and some others seem to use the forceps once in every fifty or sixty cases;—others, as Dr Merriman and Smellie, once in from ninety to a hundred and eighty. Dr Burns informs us that one gentleman, for whom he has much respect, states, that the forceps were not necessary in the hospital practice above once

in 728 cases, and in private, above once in 1000. We cannot see that Dr Burns is justified, in a work like his, so much read and studied by the younger branches of the profession—nay, even by those of great experience in the practice of midwifery—in giving, without comment, publicity to such a statement. Had he favoured us, at the same time, with the gentleman's mode of practice, and the result of it, as regards the mother and child, then, his readers would be able to judge for themselves, respecting the propriety of a mode of treatment pursued by a gentleman for whom the Dr entertains so high an opinion. For certainly the inexperienced and timid practitioner, learning, from such an authority, that the use of the forceps may almost always be dispensed with, will in many instances delay their application, to the prejudice of his patient. For, from a pretty extensive experience of more than twenty years, and from all the information we have been able to collect on this subject, regarding the usual method of treatment of women in childbed, we hesitate not to say, that unless the forceps be used more frequently than seems to be done, by Dr B.'s estimable friend, the consequence will often be fatal to the child, and at least dangerous to the mother: therefore, to fill a book of reference with opinions and practice so vague, is more calculated to mislead, than to instruct or guide the inexperienced. In consulting the various authorities who treat on the subject of midwifery, we

find some allowing the labour to continue, one, two, or more days, without any particular interference on their part; and yet the child will occasionally be born alive, and the mother do well. It is true, that those who argue in favour of non-interference in protracted labour, may bring forward cases in their favour, and also be enabled to quote some in which, when remedial means were used, the result proved unfavourable: but we have already noticed the result of our own experience in 423 cases, and compared it with Dr Maunsell's; and we think the advantages arising from the use of well-directed means must be evident to every one. A table, given by Dr Burns, said to be drawn up by Dr Brian, of the Dublin Hospital, shows farther, the baneful effects of protracted labour. "Of women," it is said, "who were in labour of their first child from between thirty to forty hours, one in thirty-four died, and one child in five was still-born." This is certainly a sufficiently appalling account of protracted labour.

Dr Ashevele informs us that Dr Smellie states, that out of a thousand women, eight will be found to require instruments, or have the child turned in order to avoid them. The same author informs us that Dr Hogen, of Berlin, has recorded, that out of 350 patients, he has employed the forceps ninety-three times and the crotchet in twenty-eight cases.

SECTION VII.—*Ruptured Uteri.*

Cases, nine in number, which occurred in the Manchester lying-in hospital, from 1827 to 1833, under the superintendence of John Robertson, Esq., surgeon, are narrated by the author, to show the risk incurred of laceration of the uterus, in labours complicated with deformity or narrowness of the inlet of the pelvis.

The greater portion of the women in this number, if not all, had born children naturally, previous to the labour in which rupture of the uterus occurred. From this circumstance, and from the account given by Mr Robertson himself, we cannot bring ourselves to the belief that narrowing of the inlet of the pelvis was by any means the cause of rupture of the uterus. One woman, or two, who had previously born children by the natural efforts, and whose pelves afterwards became so distorted as to prevent delivery naturally, might come under the care of an accoucheur who had spent a long life in the practice of midwifery, but that nine cases of ruptured uteri should come under the care of any man or woman, from any cause, in so short a period, is, so far as our information extends, quite matchless.

In *Case 1st*, the reason given by the midwife for sending for Mr Robertson was, that the woman was tossing about in bed, and complaining greatly of the crampy severity of the pains. This, says Mr Robert-

son, was at midnight. The os uteri was dilated, and the head presenting, but engaged in the inlet. He prescribed patience, and returned to his home. On being again sent for, at six morning, he learned that the pains of belly had been excruciating, but had now ceased—the uterus was ruptured—woman died. Mr Robertson informs us that on inspection after death, the antero-posterior diameter of the pelvis was somewhat diminished. The woman had been in labour twelve hours.

The circumstances attending this case certainly demand the serious consideration of every philanthropist. The woman, when Mr Robertson was first called to her, was labouring under great suffering, and her symptoms were those of danger, yet she was left in the middle of the night without a prescription holding out any plausible prospect of relief. A case of this kind, terminating in death, without an attempt to alleviate the causes of such a catastrophe, ought to be known to every one that aims at the practice of the obstetric art, in order that he may be prepared, by deep thought and research, to meet symptoms so dreadful and fatal with something like appropriate means of relief. For surely the description we have given of the state of the pelvis after death, viz., “that its antero-posterior diameter was *somewhat* diminished, can convince no one that the narrowing of the capacity of the pelvis was the cause of rupture of the uterus.

The causes of protracted labour which we have already enumerated, we doubt not, were the causes of rupture of the uterus; and we are confident that the mode of treatment adopted by us in such cases, will meet the approval of every unbiassed inquirer.

Case 2.—This woman had born six living children, without instrumental aid, previous to the labour in which the uterus was ruptured. It is stated that the congregate diameter of the pelvis was little, if at all, more than three inches. From this account the capacity of the pelvis has been such, that a child of the usual size might pass unmutilated; and on this account it is extremely likely that the nature of the pains was the cause of the rupture.

Case 3.—This woman had born her former and first child by natural effort. In her second and last labour, the uterus was ruptured, and the woman died. We are informed that the promontory of the sacrum encroached in a slight degree on the congregate diameter of the inlet. This woman was only thirteen hours in labour.

Case 4.—This woman was in labour of her tenth child when the uterus ruptured—the woman died. The antero-posterior diameter of this woman's pelvis was found to measure $3\frac{3}{4}$ inches.

Case 5.—This woman had born seven children by the natural efforts, previous to the one in which the uterus ruptured. The practitioners agreed, without

inspection after death, that the brim was manifestly under the standard dimensions. The remaining four cases are of a similar description to those we have noticed: all of them that were carefully examined after death, show unequivocally, that the pelvis was of a capacity to allow a child unmutilated to pass.

In considering the vast variety of procedure in the management of childbed cases, and the extraordinary discrepancy in the result, we are led to conclude, that the nature and operations of childbearing are subjects which, in a scientific sense, have never occupied the minds of men. What reason can possibly be assigned, why, that in the practice of an individual in America, the perforator is not necessary once in more than 3000 cases; while in Germany, by another individual, it has to be employed 28 times in 350 cases? These are two extremes; yet the prodigious variety which exists among practitioners generally, in all parts of the world, is no less at present undefined. We again ask, then, What are the causes, in childbed cases, which, in every country, in every town, in every hospital, in every individual's private practice, occasion so great difference in the duration of labour,—the use of instruments,—the loss of life?

We sincerely entreat, that every father and mother, every husband and wife, every one whose heart feels the thrill of philanthropy, will demand, in a peremptory manner, an inquiry into how far the opinions respect-

ing the causes of the dreadful loss of life, in regard to the parturient woman, are well founded; as well as the causes which occasion, and the necessities that exist for that cool and deliberate deprivation of existence, of the hapless babe in utero.

Could we be fortunate enough to draw the attention of managers of public and private charities, as well as the public generally, to the importance of an inquiry such as has been suggested above, we should consider our time well spent. For were a measure of this kind energetically gone into, and were it made a condition with every medical officer holding a situation in these charities, that a particular and distinct account of his experience should be published annually, for general inspection, it would have a cheering effect on the practice of midwifery. It is true, that such a proceeding would only prove advantageous to suffering humanity, provided the managers of such institutions never admitted or immediately dismissed those medical attendants who were themselves neither capable of improving any department of the healing art, nor practising the improvements of others. For when patronage places men in situations affording extensive fields for observation and practice, those very individuals, so patronized, are prone to give publicity to something, however erroneous, in order that they may be known to the world as authors, and as practitioners holding a most responsible situation in some large institution for the sick poor. Now, it

appears that most of these favoured individuals have never made a legitimate distinction between natural, or healthy and morbid, action; consequently, no salutary views could be held, or advantageous means advised by them; yet on account of the situation they occupy, their advice and practice, however trifling, absurd, and ruinous, will be followed by a great portion of practitioners. Mankind generally, are too indolent to make the exertions which improvement requires, and duty demands; and as soon as place, patronage, and affluence are secured, relaxation takes place in the performance of those important duties, which the privileged only, from their ample fields for observation, can fully discharge; therefore, generally speaking, life appointments are ruinous to the advancement of every good.

If these suggestions were actively put in operation, no doubt can be entertained, that in a very short time there would be more uniformity in practice, as well as in the result of childbed cases, and the amount of human life preserved would be immense.

It may perhaps be thought and said, that an inquiry which has for its object the better security of the lives of the poor in childbed, is not called for; seeing that every country is crowded and burdened with paupers; but it is incontestible, that an inquiry for behoof of the poor, would be equally advantageous for the highest personages in the state. The accoucheur that practises

unscientifically among the poor, will practise in a similar manner among the rich.

SECTION VIII.—*Treatment of Protracted Labours.*

When entering on the consideration of the various means employed in obviating the several obstructing causes in protracted labour, we may premise, that the uniformity in the treatment will be greater than might be anticipated. This uniformity arises from the circumstance, that in almost every labour of this description, all the causes of protraction are present, though one or more may predominate. Thus, it becomes highly necessary to observe, separately, the different retarding causes, in order that during labour the most prominent one should, in the first place, be selected for the purpose of employing the appropriate remedies; for example, if constipation were considered a principal cause of delay, the means for relieving it would first be put in operation, and so of the others.

In the treatment of protracted natural labours, we are uncompromising advocates for shortening their duration, but, generally speaking, we are opposed to meddling with any labour, for the first three or four hours after its commencement. It may happen, that on our first arrival, some violent symptom may present itself which calls for immediate interference, and it should be attended to. But in almost every case, a considerable time should be allowed to enable the accoucheur to

make himself, by patient and careful observation, well acquainted, in the first instance, with the state of his patient, and the true nature of her labour. It will seldom, however, be either necessary or proper to defer the means of relief longer than the period specified; unless about this time the labour has assumed a character which promises speedy delivery. We consider it unnecessary to mention here, that when, on our arrival at the patient's house, we are informed the labour has continued already three or four hours, and that on examination we are satisfied that it has distinctly commenced; delay for one or two hours more is now all that is necessary, until at the end of this period the labour pains are found to continue severe but ineffectual.

In the treatment of the inflammatory forms of protracted labour, it is important to bear in mind, that the degree of inflammation is often much varied, and requires a corresponding treatment. For instance, when the inflammatory symptoms run high, and the patient is of robust constitution, depletory measures should be more freely employed, than when the symptoms are milder and the patient less vigorous. When either inflammation or constipation is a prominent symptom at the commencement of labour, it should without delay, be combated; but, in general, we may always wait the usual period, formerly noticed for observation, before any particular means are used. At the

expiry, then, of the usual period for observation, if the case has assumed a form which characterizes protracted labour, the first means of relief we use is 60 drops of laudanum, mixed with a little sugar and warm water. The object we have in view in giving this medicine, is to lessen the excess of sensibility, and unnatural and spasmodic action of the uterus. These obstructing causes always operate unfavourably to the expelling efforts of the expulsive apparatus, and when little inflammation is present, they may occasionally be removed without blood-letting, by the use of laudanum. Although, in the milder forms of such labours, a single dose of laudanum will produce the most happy effects in expediting a labour, yet this favourable result is by no means very frequent. For, in general, those cases which really require the employment of laudanum are too obstinate to be effectually relieved by any single means; and we find that after the first dose of the opiate has been administered, the pains continue unchanged in regard to their efficiency, though in severity they are often increased. Under such circumstances, about an hour after the first dose of laudanum was administered, a second and similar dose is given to the patient; and should this second quantity fail, in about half an hour after it has been swallowed, to produce a sensible improvement on the labour, we may rest assured that the inflammatory and other symptoms will require blood-letting, in order to remove their

obstructing influence over the expulsive efforts of the mother, and to bring the labour to a speedy termination. As soon as the necessity for blood-letting is ascertained, it should immediately be had recourse to ; observing the directions formerly given, both as regards the quantity of blood, and the state of the patient. When the woman is robust, and the symptoms violent we should allow the blood to flow till the face begin to pale, or the patient feel really weaker, and in general before this takes place, from 20 to 30 ounces of blood will be lost. To trifle in such cases, by taking 12 or 15 ounces of blood, is only using half and ineffectual means of relief. But when the patient is less robust, and the symptoms milder, the bleeding carried to 12 or 15 ounces will generally produce the same good effects, as the larger bleeding in the former instance ; and on this account we may almost always bleed our patient, when this is necessary, till the face pale, or till she feel slightly weak, whatever may be her state otherwise. As far as we know, when a woman in childbed is so feeble that she cannot bear the loss of blood, no symptom is present that cannot be removed without bleeding. About twenty minutes after the patient has been bled, and without waiting to witness the effects, a purgative clyster should be administered. The form of clyster which we uniformly employ, in such cases, and which will always be referred to when a clyster is spoken of in these observations, is the fol-

lowing :—a heaped table spoonful of common salt, nearly as much butter, and about two pints of warm water.

A clyster so composed, and wholly thrown up into the intestines, will very rarely fail to produce a free evacuation from the bowels ; and when administered as advised, soon after bleeding, more advantage is derived from their united operation on the system than some may imagine ; for in all such obstinate labours, there is an extraordinary degree of rigidity of the soft parts of the mother, and resistance, in these parts, to the expulsion of the child ; and when, on account of the operation of the clyster, the woman comes to the pan, the erect position, soon after the bleeding, in connexion with the operation of the clyster, induces a degree of feebleness and relaxation of the system generally, as well as of the obstructing powers of the uterus, which consequently enables the expulsive powers of the viscus to propel the child with greater facility ; and it is no unusual occurrence, for the labour to be advanced more in half an hour, under such circumstances, than it had been for three or four hours previously.

It particularly deserves notice, that when the woman is on the pan, for the purpose of passing the clyster, she should be requested to endure a few pains in this position, for the rigidity of the soft parts being now lessened, the expelling powers, from the posture itself,

will have greater effect than when the woman is placed horizontally.

Those who may feel inclined to put to the test this mode of treatment, must be, in order to success, very accurate in every step of the proceeding, and in none more so than in the bleeding and clyster; for if the bleeding is not carried sufficiently far to induce a degree of relaxation of the obstructing causes, and if the clysters are not of sufficient strength, and properly administered, to secure their full operation, the benefit they are capable of affording, when properly employed, will, in a great measure, be lost. Thus, in some of the most difficult and obstinate forms of labour, from want of activity and accuracy in the use of means, children, that might have otherwise been expelled by the natural efforts, are destined to be born with a perforated skull and a mangled brain.

The employment of the second dose of laudanum, followed by bleeding and clyster, is more efficacious in improving the operation of the labour, and effecting delivery, than when only a single dose has been given; for in a considerable number of cases, delivery will be speedily accomplished after the use of the additional means. In several cases, however, of the 423, to which our attention was particularly directed, instead of the patient being relieved, and the labour expedited, after all the means above mentioned had been carefully employed, every symptom seemed to be aggravated, and

the woman was thrown into a state bordering on despair. This state of the case seems to arise from an increased power in the uterine actions, accompanied with an augmentation of the sensibility; the obstructing actions of the uterus, assisted by the excess of sensibility, still completely overpowering the expelling efforts of the viscus.

The woman now becomes restless, and refuses to be restrained, tossing in bed even during a pain. In this trying situation, she implores for relief at any sacrifice, declaring, in the most desponding tone, that it is impossible she can long exist. This is a state of extreme suffering to the parturient woman; and to an accoucheur of correct mind, it must be a moment of great anxiety. If such a state of things be allowed to go on long, all the fearful consequences, so often recorded in similar cases, must inevitably follow. In such circumstances, no man who does not consider himself perfectly acquainted with the nature of a state so distressing, and who is not convinced that the means he is employing are adequate to overcome any present difficulty, could for a moment think himself justified in continuing the same course of treatment which has effected nothing but an apparent increase of distress. Convinced, however, that he is correct in the judgment he has formed of the nature of his case, he coolly and cautiously determines to subdue the causes of protraction, by increasing the powers necessary for

this purpose. In this deliberative mode of proceeding, then, about two hours after the second dose of laudanum had been given, a third dose of 60 drops is again administered, and, we need scarcely say, that in such a state of suffering it is not difficult to persuade the patient to take medicine. About half an hour after this has been given, and sometimes in a shorter period, every symptom becomes changed, the patient is more composed, the intervals between the pains are less distressing, the natural and efficient pains return at regular periods, which the patient now bears with greater fortitude. In a great proportion of cases of this description, the child is born about an hour and a half or two hours after the woman has taken the third dose of laudanum.

No application in medicine, so far as we know, can be employed with so great a degree of certainty in giving relief, in obstinate and violent complaints, as this third dose of laudanum in protracted labours ; for though it appear that just before giving it the symptoms had all been aggravated by the former similar doses, yet it is clear, that by the previous treatment the labour was brought to a point, on which the balance was easily turned in favour of the case.

In a few instances, however, in which the energy of the expulsive apparatus has suffered from their diseased condition and excessive action, at the early part of the labour, the expulsive powers will be ren-

dered inadequate to the expulsion of the child; and if we had now no other resource, instrumental aid would be required; but fortunately, at this stage of labour, after the careful employment of the means just noticed, we have another common, safe, and effectual remedy in the ergot of rye. If the natural efforts, then, at the expiration of two hours after administering the last dose of laudanum, seem too feeble to effect delivery, the ergot of rye should be immediately prepared and given to the patient.

The quantity of this drug which we generally give in such cases, is a dram and a half in fine powder. One half of this quantity is infused about twenty minutes in two ounces of boiling water, when both powder and infusion are swallowed by the patient. The pains begin to be stronger and more frequent, in general, in about fifteen or twenty minutes after the ergot has been swallowed; but unless, at the expiration of half an hour after it has been taken, speedy delivery be apparent, the second half of the ergot, prepared as the first, is administered. By this second dose, the pains are considerably increased in strength, and the child is delivered in a short time afterwards.

We have never seen a bad symptom arise from the use of the secale. We have never given a larger dose than a dram and a half; and, with the exception of one case, to which we shall by and by advert, it has always operated in expelling the child alive.

In the congestive form of protracted labours, the treatment is very similar to that pursued in the inflammatory form. The obstructing causes, in congestive cases, operate in resisting the expelling powers exactly as when inflammation is present, the only distinct difference between them being, pure inflammation in the one, and less inflammation and more congestion in the other. In the congestive form, however, from the coolness of skin, slowness of pulse, and listlessness of the patient, the accoucheur is apt to be misled, and to consider his case accompanied with very considerable debility. And having come to this conclusion, he very naturally depends on time, mild nourishment, and perhaps light cordials, for the accomplishment of the labour. These are delusive views of the case, and not at all founded on a knowledge of its nature; and in many labours, so viewed and so treated, the head of the child never comes within reach of the forceps, and, consequently, the perforator must be employed. But all the evil does not end here; for unless the case be properly understood, and suitable means applied previous to the perforation of the child's head, the spasmodic contractions of the uterus around the infant's body, will render its extraction almost, and sometimes altogether, impracticable. Even in less obstinate cases, in which the head of the child has come so far through the pelvis as to be grasped by the forceps, the extraction has been extremely difficult, and sometimes could

not be effected until full doses of laudanum and other means were employed. Numerous cases of this description are on record, and a much greater number have, no doubt, never been recorded; several of which we have ourselves witnessed.

Proceedings so heartless, and so revolting, may, in almost every instance, be avoided, by the cautious use of the means mentioned in these observations.

We allow, in the treatment of congestive cases, the same number of hours to elapse from the commencement of labour, as in labour accompanied with inflammation, before any means are employed. We have already noticed, that the same kind of obstructing causes are present in this form of labour, as in the inflammatory, with the exception of pure inflammation itself; so they must be combated exactly in a similar manner as in the inflammatory form; and, as congestion produces analogous effects, as an obstructing cause, with that of inflammation, though, perhaps, less in degree, its remedy must also be the same as for inflammation.

Keeping in view, then, what we said on the treatment of the inflammatory form of labour, viz., that we allow a certain time to pass before we intermeddle with the case; then finding little progress making, but considerable continued pain, 60 drops of laudanum are administered.

An interval of an hour is now allowed, in order to

watch the progress of the labour and the effects of the medicine ; and should little alteration, at the end of this period, be observed, other 60 drops of laudanum should be administered without delay. Whatever may be the state of the labour after the second dose has been given, and whatever may have been the state of the patient's bowels previous to the commencement of labour, we have enjoined, and we again enjoin, under a deep sense of our duty, that a third dose of laudanum shall never be given until the patient has had duly administered, and again ejected, the purgative clyster we have advised. In every case of a congestive type, in which the second dose of laudanum does not inspire the accoucheur with a prospect of a speedy delivery, it will always be advisable to bleed the patient as freely as the nature of the case will admit, previous to giving the enema. For, in this form of labour, as well as in the inflammatory, an accumulation of blood in the expulsive apparatus acts as a powerful obstructing cause to delivery. If delivery be not effected, or about to be so, in about two hours after the third dose of laudanum has been given, the ergot of rye should be prepared and administered, as formerly advised.

The observations we have thus made on the congestive form of protracted labours, manifests, we think, the propriety of observing the great difference between its symptoms and those of the inflammatory form ; for unless this distinction be accurately made, and the na-

ture of the case be fully understood, it is impossible that that mode of treatment would be put in operation, which is absolutely necessary to bring about a speedy and safe delivery.

In the treatment of those labours in which excess of sensibility or acute pain is the cause of protraction, little more will require to be done than to operate on the bowels by means of the clyster, and to administer the laudanum, exactly as to time and quantity, as in the foregoing instances. Cases of this description seldom occur, yet they are occasionally met with, and should be carefully considered and distinguished from others; for in some weakly constitutions bleeding might prove prejudicial; and is, perhaps, never required when the labour is unaccompanied with inflammation or congestion. However, we cannot conceive that much difficulty can arise regarding the proper course to be pursued; for unless there be evident symptoms of speedy delivery after the second dose of laudanum and the clyster have been about an hour administered, the accoucheur may be assured, generally speaking, that the labour will be improved by taking blood from the arm. Should delivery not be effected in the usual time, after the common means have been employed for the removal of the obstructing causes, the ergot of rye should be used as in the former cases.

The obstructions to delivery arising from unnatural actions and spasmodic contractions of the expulsive

apparatus, are never present except when occasioned by the other morbid conditions of these parts; and when the three principal causes of protraction are subdued, in the manner already mentioned, unnatural action and spasm will entirely cease.

Before we dismiss this important topic, we beg that it may never be forgotten, that there is no such thing in the nature of childbearing, as a necessity for long-continued ineffectual labour pains; and that the means we have advised are perfectly adequate, in almost every instance, when appropriately employed, to remove the obstructions, and enable the uterine efforts to expel the child, within, or in about, twelve hours after the commencement of the most obstinate labour.

When we look into the works of the great practical authorities on the subject of protracted labours, we are quite bewildered regarding the course we ought to pursue in the management of such cases; for scarcely will we find two of them holding the same opinions on a subject which presents but few variations in its usual course of procedure. And as these variations are easily ascertained and distinguished, and have, there can be no doubt, regularly, to some extent, appeared in every protracted labour, from the earliest periods, since the process of parturition was attended to, till the present time—this discordance in opinion is the more to be regretted, and appears the more remarkable. In practice too, we find so great disagree-

ment, that we intuitively conclude, that all is not right. For, where the distorted operations of nature are so uniform in kind, they should, if properly understood, be more uniformly treated, and the treatment followed with a more uniform result. But fearful as it may appear, it is no less true, that the treatment, and the result of that treatment, are so widely different, that one would think the different authorities were writing on quite different subjects.

SECTION IX.—*Different Opinions and Treatment.*

On the management of lingering labours, Dr Merri-
man states, that if there be any tendency to fever or
inflammation, Mauriceau and others have long since
recommended bleeding as a most efficacious remedy ;
and he says, in America, women have been bled to the
amount of from 20 to 50 ounces at a time, for the pur-
pose of relaxing the rigidity of the parts concerned in
parturition: Bleeding to such an extent, he asserts,
renders recovery tedious, if not doubtful. Now, this is a
singular and dangerous assertion made by so experienced
and skilful an accoucheur as Dr Merriman ; for he makes
no distinction of cases. If the patient be young and
robust of constitution, and the febrile symptoms and
inflammatory action run high, we affirm, without fear
of contradiction, that bleeding to 50 ounces, in such
cases, is not only safe, but without it, that dreadful
alternative, which is always uppermost in the minds of

accoucheurs, the breaking down of the child's brain, must be had recourse to. In such cases we have not extracted 50 ounces of blood at one bleeding, but we have more than once extracted this quantity at two bleedings, with an interval only of two hours, with the happiest effects, and without the least interruption to a speedy recovery ; indeed, if evil consequences result from such a course, the bleeding must have been by far too long delayed. Although the cases in which so free bleeding is required are not numerous, yet they do unquestionably occur, and may be terminated with safety, both to mother and child, by means of free bleeding and the other usual remedies. On the other hand, nothing can be more certain than this doubtful recovery, after so free bleeding, in a weakly constitution ; but in truth, by proper treatment, so free bleeding in such a constitution will never be required. Dr Dewees approves of bleeding in delicate women in labours of this description ; and, as we have already stated, when necessary, it has always been in our hands safe and efficacious. Drs Hamilton and Burns, as well as many others, are favourable to the employment of bleeding in tedious labours, accompanied with rigidity of parts ; but in general, we think too little attention is paid to the quantity of blood extracted, or in other words, to the nature of the case, and the effects which the bleeding has upon the patient.

On the use of opium in such cases, Dr Merriman

remarks, that in lingering labours, 10 or 20 m. of T. opii will be useful. From 6 to 10 grains of solid opium, he says, have been recommended, but such Herculean doses would not always be safe. He also states, that three cases occurred, within his knowledge, in the practice of a midwife, where an entire suspension of uterine action was produced, requiring the aid of instruments to effect delivery, by, he says, as I conceived, an injudicious exhibition of laudanum, at the time when the pains, which had been long lingering, were just beginning to become effective.

With regard to the advantage to be derived from 10 or 20 m. of T. opii, in obstinate lingering labours, we can positively state, after much experience and close observation, that little will be gained beyond a slight mitigation of suffering; for the labour will certainly not be shortened; and it is only in the mildest cases that such small doses can be effective, even in mitigating pain. On the other hand, we can say nothing regarding the safety of 10 grain doses of solid opium in such cases, as we have never given more than 180 drops of laudanum in any case, and this quantity always in divided doses, as formerly stated. No bad symptom ever occurred from the use of this quantity, and, so far as our knowledge extends, we have used more laudanum in lingering labours, by far, than any accoucheur ever did before us; we therefore consider ourselves warranted to publish to the world, that the

quantities of laudanum we have administered in such forms of labours, are always safe, when given according to the rules we have laid down. In reply to what Dr Merriman has stated, respecting the power of laudanum in suspending uterine action, in lingering labours, just when the pains were beginning to become effective, we can affirm, that the full doses of laudanum, administered as we have recommended, will always improve the symptoms of such pains, and never will suspend, under such circumstances, uterine action. If large doses of laudanum, or solid opium be given in such labours, when congestion, inflammation, and costive bowels are present, the effects will be bad, but the fault is with the accoucheur.

In Dr Hamilton's work on *Midwifery*, for 1835, is the only attempt with which we are acquainted, to limit the duration of all labours, such as we are considering, to, or within a certain number of hours. As certain circumstances prevented us from perusing the medical periodicals for some considerable time, it is only a few months ago that we had the great satisfaction of reading a review of this interesting work. And on perusal, we were no less pleased than surprised, to learn that the great mind of Dr Hamilton had been directed for thirty-five years to so laudable an object as that of investigating into the causes of protraction in labour, as well as that of devising and applying means for the removal of such causes. Our surprise

arose, on our perusal of the paragraph on this topic, from the circumstance that we had, for at least ten years previously, been labouring in the same field, on the impression too, that no one, even remotely, had ever taken up the subject in a similar manner. But it will be evident, we think, both from our mode of investigation and mode of treatment, that what is contained in these observations, has no connexion whatever with what is advanced by Dr H.; indeed, the 423 cases, on which our observations were made, had been completed just about the time that Dr Hamilton's work, and the review of it appeared.

Dr Hamilton informs us, that by the following mode of treatment, no case under his charge, for the last thirty-five years, has been above 24 hours in labour, and, excepting in cases of disproportion, none so long. In order, then, to bring his cases to a termination within, or in 24 hours after the commencement of labour, he completes the first stage, or complete dilatation of the os uteri, in 12 or 14 hours. The means he uses for this purpose are venesection, opiate enema, and manual assistance; by this last he means gentle pressure on the anterior edge of the os uteri, with two fingers, during a pain.

As we have only seen the review of Dr H.'s work, which does not take notice of the terminations of the cases of disproportions, we are at a loss to know whether the cases which did not terminate in 24 hours

were delivered by the forceps or crotchet, or if they terminated naturally, after a longer duration of the labour. For, if delivery was effected by means of the forceps, or naturally, after a longer continuance of labour pains than 24 hours, we maintain there is no good reason to consider the capacity of the pelvis so limited, as to bring it under the appellation of disproportion. We have really already read so much of this supposed narrowing and disproportion of pelvis, in which the women have born children both before and after the cases in which it is boldly affirmed to have been present, that we are not warranted to give credit to the statement of any man, unless it be fully and clearly given on every point.

We doubt not, that what Dr Hamilton advises, and practises, will be of great advantage in those forms of labours for which they are employed ; but we are quite certain, that by the mode of treatment we have advised and practised, more cases will terminate within 12 hours after the commencement of labour, than by his method within 24 hours ; indeed, all labours under our treatment will be terminated by the time, or before, the doctor has accomplished the dilatation of the os uteri. The administering of opiate clysters, previous to, or during, the dilatation of the os uteri, may be certain in the application, as well as advantageous in the effect ; but in numerous instances, in which the obstructing causes only begin to operate most powerfully after the

os uteri is fully dilated, the head of the child somewhat advanced into the pelvis, and during the pains, when there is some degree of downward pressure, the opiate clysters are not so certain in their application, and consequently not so advantageous in their effects, as giving laudanum by the mouth. For instance, a pain soon comes on after the opiate clyster has been given, when a portion of it, by the downward pressure, will be discharged, and consequently the effect calculated on uncertain. Whereas, when given by the mouth, it is almost always retained, and even if ejected some time afterwards, the effect desired is nevertheless generally attained. We have always practised the manual assistance mentioned by Dr H.; and have never hesitated to introduce the point of the finger within the os uteri, moving it gently round within its orifice. This may be done, as far as we have observed, without causing present uneasiness, or future inconvenience to the patient. We have also, once or twice, in the advanced stage of obstinate labour, introduced laudanum per rectum, but, as above stated, it did not succeed, and we cannot advise it with a view to that uniform success which will follow the administering of it by the mouth. Besides, we are afraid that those who trust to Dr H.'s mode of treatment, will be obliged to acknowledge that they occasionally meet with cases of disproportion.

Dr Burns follows nearly the same course in the

treatment of such cases, as that by Dr Hamilton. He says it is not always safe to counteract uterine action by strong opiates. This is a vague expression, conveying no meaning. What he may really mean by *strong opiates*, or *counteracting uterine action*, we do not pretend to know, but we again fearlessly state, that the doses of laudanum we have advised to be given, with the view to counteract morbid uterine action, are always safe and advantageous.

Dr Ramsbotham, in his practical works, states that "under the progress of a common natural case, even attended with much pain, opiates are inadmissible." We shall not follow this author farther in what he advances on the use of opiates in lingering labours; every statement he makes being directly opposed to what we have uniformly found to be the effect of opiates considerably administered.

Dr Denman states, that when the pains are long continued, and of a spasmodic character, 20 drops of laudanum may be given. But in general, he says, "I have great objections to opiates, on slight occasions, for women in labour; being persuaded they make that which was in itself natural become difficult or dangerous to the mother or child."

That the experience of so distinguished an accoucheur as Dr Denman should have furnished him with materials capable of operating on his mind, so as to persuade him of the truth of what he has thus stated,

regarding the effects of opiates on natural labours, surprises us in no small degree; for if we be convinced of any fact respecting opium, it is, that if it ever produce the effects assigned to it by Dr Denman, it is so extremely rare that we have never witnessed it. And his work on *Midwifery* being the first on this subject which we perused, it was our chief guide for years; and from our first case to our last, we forgot not the opinion expressed by this great authority—that opiates had a tendency to convert natural labours into difficult or dangerous ones. Thus we watched the effects of every dose of laudanum with the utmost anxiety and care, until we became fully convinced of its total inability, if properly administered, to do injury in those cases of labour to which our attention was directed; and that Dr Denman, like all others, had never duly considered the nature of his case, or administered his laudanum, as it is now generally advised, after bleeding, and in an open state of bowels.

Dr Ashevele advises, in protracted labour, where the pains harass and do not benefit, to give 15 or 20 minims of T. opii. “Much larger doses,” he says, “have been recommended, and we have seen their bad effects in the entire suspension of uterine action.” Now, no one can understand what authors mean by large, full, and strong doses of laudanum; but we again assert, that the large doses of laudanum which we are in the habit of giving, along with other

treatment, will *never* suspend *natural* uterine action. It is well known that suspension of uterine action occasionally takes place, even after the natural pains had advanced the child considerably, and when no medicine whatever had been given; and although the same occurrence take place in a very few instances after the use of laudanum, but does not do so generally, would any man in his senses infer that this is the effect of opium? At page 292 he gives a case, in the treatment of which, in our opinion, he unwarrantably departs from his over-cautious and former advice. The patient had been labouring under inefficient pains for about 22 hours, when Dr Ashevele, seemingly without any preparatory steps, gave, by clyster, two drams of laudanum. An hour afterwards, finding some disposition to dilatation, the injection was repeated with the same quantity of T. opii. Two hours after the last injection, it is stated, the woman became weak, vomited, and alarming symptoms came on, and, to use his own words, "her whole appearance was most distressing and deathly." After several hours, we are told, efficient pains came on. When means of relief, in many—many forms of distress, of the highest character, are used in so unwarrantable doses, and so rapidly administered as to produce dangerous symptoms, and then the blame thrown on the means, when it rests entirely on the improper mode of employing them; improvement must

be far distant, particularly when publicity is given to such procedure, and no one raises his voice against it.

On the advantages, disadvantages, and inutility of the ergot of rye, much has been said and written.

Dr Merriman states, that “the numerous instances in which the child was still-born after the exhibition of the ergot of rye, cannot fail to lessen our favourable opinion of its virtues.”

Dr Ramsbotham has little confidence in its powers in accelerating the expulsion of the child.

Dr Davis informs us, that there is no evidence that he is acquainted with, which shows that the ergot of rye has in one instance superseded the necessity of using the forceps.

Dr Ashevele is favourable to the use of ergot. He says it has been considered very destructive to the life of the child, but thinks the death may be attributed to other causes—as the too early exhibition of it; he also states that it sometimes fails to produce any good effects.

Dr Ingleby has generally found its effects uncertain; he informs us that a Mr Mickell prescribes it when the os uteri is undilated.

Dr Burns states, that children born after the exhibition of ergot, very often are dead, and in that case are blanched and bloodless. This effect he attributes to a specific effect upon the uterus itself, which has an influence on the ovum.

The authorities we have quoted are sufficient to show the great variety which exists in the views of medical men, regarding the powers and operations of a medicine, which, we shall endeavour to show, when employed under nearly similar circumstances, will operate in nearly a uniform manner. The ergot of rye appears to us a valuable addition to our stock of remedial means, for the relief of the parturient woman ; and if the few observations we are about to make, tend to reconcile the discrepancies of opinion which exists among accoucheurs, respecting its benign and its baneful effects, we shall feel much pleasure.

After we had repeatedly and carefully watched the operations of the secale, at the bedside of the child-bearing woman, it appeared to us, very convincingly, that whatever might be the processes going on in the uterine system at the time the ergot was administered to the patient, these processes would be all equally acted upon by its influence, so that, if the resisting and expelling powers of the expulsive apparatus were nearly balanced at the time the ergot was administered, they would be in the same state afterwards, and consequently the pains would be equally ineffective as before its exhibition ; and thus it will be easily understood, that the increased pain arises from the increased inefficient action. On the other hand, if the expulsive powers considerably predominate over those of resistance at the time the secale is exhibited, and the sensi-

bility be previously sufficiently subdued, it is more than probable that the child will soon be expelled alive. But if the expelling powers be only barely sufficient to overcome the resisting spasmodic contractions of the uterus, after the ergot has been given, and the expulsion of the child be somewhat protracted, it will, in most instances, be still-born. Thus, then, it is clear, that unless the obstructing causes to delivery, which we have already noticed, be duly subdued by the means adapted for that purpose previous to giving the ergot, a great number of children will be born dead that might otherwise have been saved. Indeed, from every thing that we have observed regarding the *secale*, its operation is always certain and safe, both to mother and child, if administered in the manner we have advised; and, in our opinion, he that would put forth his hand to exhibit the ergot of rye to a parturient woman, without first well considering the nature of the case, the proper period at which it should be given, and also first employing those means calculated to supersede its necessity, and render its operation efficient and safe when indispensable, is, if the child be still-born, chargeable with the crime of infanticide!

The danger arising to the child from an improper employment of the ergot, seems clearly to consist in an increase of the unnatural spasmodic contractions of the uterus round the child's body, particularly compressing the umbilical vessels, and retarding or sup-

pressing the circulation of the blood through them. Now, as the peculiar advantage to which the secale seems to be destined, is to increase the expelling efforts of the uterus during parturition, any obstruction, to this its natural operation, should be carefully obviated before it is administered. In all protracted labours, the child is exposed to the same kind of danger, as when the ergot of rye is improperly given; but it is less in degree, for fewer children would be born dead in protracted labours, when the secale is withheld, than if it be administered without the precautions we have mentioned. We may at any time satisfy ourselves as to the effect of the circular fibres of the uterus compressing the umbilical vessels in protracted labours, or when in such labours the secale is improperly exhibited. For this purpose let the finger of the accoucheur be placed on the umbilical vessels as they lie on the belly of the infant when it is passing through the external parts of the mother, and it will then be found that very little pressure, even against the yielding abdomen, will suffice to interrupt the circulation.

We once inquired at an experienced accoucheur, who had charge of a lying-in hospital, if he considered that the employment of the secale in childbed cases had a tendency to endanger the life of the child; his reply was, that he had employed the secale very frequently, and, with the exception of one case, he never

understood it to have been prejudicial to the child. This reply, from a gentleman whose experience was so considerable, surprised us in no small degree; but in order that we might fully understand each other, we put the question thus: Are you convinced that there was only one child born dead after the exhibition of the secale, that was alive at the time it was administered? He acknowledged that many of the children that he supposed alive at the period of administering the ergot of rye, were born dead; but he considered the cause of the death to have been the long protracted labour, and that the child would have been born dead whether the ergot had been given or not. Many act and think like this gentleman, or rather act without thinking, at least for the benefit of the child; for we have been informed, on what we consider undoubted authority, that the ergot of rye is administered, in some instances, within six hours after the commencement of labour, when that labour was mild, and nothing unusual in its aspect. In one notorious case, in which the labour was of a very moderate description, and of short duration, the child being also quite lively, the ergot was administered, which very soon produced continued severe pain, and the child, though expelled in no very long time afterwards, was born dead, to the great sorrow of the youthful mother, who was persuaded that her child was destroyed by the baneful dose.

Although accoucheurs are generally ready to admit that there are retarding causes to delivery, yet it is surprising how distant their views are from a correct knowledge of these causes.

Dr Merriman, under the head "Membranes improperly Ruptured," takes notice of the bad effects of rupturing the membranes early; and gives a case in which the accoucheur ruptured them as soon as the pains became inefficacious, and every favourable symptom had vanished; but it is stated that the pains had grown inefficacious before the membranes were ruptured. Now we have often attended cases of great severity and obstinacy, in which the membranes were early ruptured, either by art or otherwise, and where the labour pains had really commenced; yet such cases were as easily converted into speedy deliveries, as those in which the membranes were entire; in truth, the delay arises, as in other cases, from a morbid condition of the expelling powers.

In breech cases too, all are agreed, that the presentation is the cause of delay; but if this were the sole cause, it would always operate in the same way, whereas, in many cases, a breech presentation is speedily delivered; and perhaps were the same number of breech presentations compared with an equal number of head presentations, the duration of the labours would be nearly equal. How near the truth this view may be, we are not prepared to affirm; but

we maintain, that tedious breech labours may as certainly be shortened to the usual period, as those of any other form.

Under the head of arrest, which is only another stultifying name employed to denote those forms of labour in which delay arises from an unhealthy state of the uterine system—in their observations on such cases, much laboured expression has been used, by gentlemen of great learning and experience, to explain something which does not exist; and to draw the attention of the accoucheur to the destruction of the child, in order to save the mother; when, in reality, the plain course to pursue is, to remove the obstructing causes to the actions of the uterus, that the infant may be speedily expelled alive by the natural efforts, and the mother's safety more certainly secured. In all cases, then, of arrest, repeated opportunities of judging, enable us to express our conviction that, by our usual mode of treating protracted labours, the child may be born in a few hours by the natural efforts of the mother. Being convinced of the truth of this inference, we trust we shall never again hear of a woman being allowed to continue from one to seven days in labour!

Dr Burns, who is justly acknowledged high authority, informs us, that instrumental aid is more frequently required in cases of arrest than in those of impaction. In such cases, he says, the retardation appears to arise rather from the nature of the pains, or the unyielding

state of the soft parts at the outlet of the pelvis, than from any great obstruction offered by the pelvis to the delivery. This admission by the doctor certainly corroborates what we have stated, both regarding the causes of delay, and the curative means.

In cases of impacted head, things are very different from what occur in arrest; for in the former, the capacity of the pelvis is not in proportion to the size of the child's head which is to pass through it; and were this disproportion capable of being exactly ascertained, there would be an end to the difficulty in deciding on the case, for when the pelvis is limited within a certain point, it is impossible for the child to be brought through it until broken down. Although this state of pelvis and form of labours do not come within the range of our observations, yet we feel it to be our duty to state, that the result of the experience of several accoucheurs who have had ample opportunities for observation, shows, that cases really requiring the use of the perforator, are very seldom to be met with—viz., Dr Dewees, as formerly noticed, did not use the perforator once in more than 3000 cases; and in the Maternité at Paris, only 16 times in more than 20,000; and in our own practice, in cases attended by us from commencement, only once in between one and two thousand cases. Dr Burns, too, informs us, that universal impaction rarely exists, and when it does, it requires the head to be opened. On

the other hand, the general experience of accoucheurs shows, in the most unequivocal manner, that in many cases of supposed impaction, in which the perforator was employed, there has been little or no narrowing of the pelvis; the mothers, either previous or subsequent to the labours in which the head of the child was perforated, having born children alive by the natural efforts.

There can be no doubt that many children are born alive without the assistance of art, when the pelvis is in some degree contracted within the usual limits, but in such cases the labour pains are strong and unrestrained, and easily overcome any obstacle offered by the slight encroachment of the pelvis. In such cases, however, when the obstructions to the actions of the uterus are strong and unsubdued, the child will be lost, and, in some instances, so will the mother. After this mournful result, if permission be obtained to inspect the body, the accoucheur can demonstrate that the capacity of the pelvis is narrowed within the usual limits, and thus accounts for the impossibility of the passage of the child; but as children had passed through the same aperture before, and as the capacity of the pelvis is still such as that a child of the usual size is capable, by strong efficient pains, of passing through it—it is clear that the catastrophe does not arise so much from the slight contraction of the pelvis, as from a neglect of the accoucheur in the removal of

the obstructing causes to delivery in the expulsive apparatus itself. From these considerations, it will be evident to every one, that when there is a prospect that a child may pass through the pelvis by the natural efforts, all obstructions to the efficiency of these efforts should be early removed; for whether this may arise from constipation or accumulation of blood, the removal will not only improve the efficiency of the pains, but the parts will be relaxed and diminished in size, and the aperture through which the child is to pass enlarged.

The force of these observations, with a view to encourage accoucheurs in the use of all legitimate means to assist the parturient woman to expel her child naturally, even when the pelvis is somewhat contracted, will be strengthened by a case from Baudelocque, related by Dr Burns. In this case, the distance between the parietal bones at birth was diminished to $2\frac{1}{2}$ inches, and the length from the chin to the vertex increased to $7\frac{3}{4}$ inches. The child was alive, and by the next day the head had recovered its shape. As the more unyielding part of the skull, Dr Burns states, measures from 3 to 4 inches, according to the size of the head, it is evident that, in this case, the pelvis must either have been larger than was supposed from the compression of the parietal bones, or the base of the cranium must have descended very obliquely. Thus the doctor admits the possibility of a child passing

through the pelvis under the above circumstances. He further admits that "a head may be expelled by the natural efforts, through a pelvis which is too small to permit of delivery by the forceps; for, says he, we not only get rid of the thickness of the blades, but the head moulds itself better, and passes in a line more correctly corresponding to the axis of the pelvis, than it often does when the forceps are employed." This is a clear and correct statement of a very valuable fact.

Dr Davis states, "I feel it my duty to express my opinion conclusively, as unfavourable to the general principle of having recourse to the use of the forceps in cases of difficult births from defective capacity of the maternal pelvis. The forceps," he states, "may be occasionally used with great advantage to finish laborious births, after the natural efforts shall have propelled the child's head into the lower part of the pelvis, and beyond the impinging point which had previously resisted its progress." These remarks of Dr Davis are very judicious; for it is evident that, when the aperture of the pelvis is so contracted as barely to allow the child's head to pass by the strong natural efforts of the uterus, whenever these efforts are less efficacious, the head of the child will remain fixed in the most contracted part, and it will be impossible, with safety, to introduce the blades of the forceps between the child's head and the narrowed joints of the bones. In such cases, then, the duty of the accoucheur

is neither to deliver by the forceps, nor to perforate the child's head, but to remove the obstructing causes to the actions of the uterus, and, if necessary afterwards, its propelling powers may be increased by the ergot of rye, when, in almost every such case, the child will be speedily and safely expelled.

Dr Ramsbotham, in his practical works, gives several cases of severe protracted labours, which, in our opinion, might have been converted, very easily, into labours of a few hours' duration. Case 44, which continued 80 hours, might, from the account he gives of it, have been terminated, we think, to a certainty, by the usual means, in 10 or 12 hours.

Case 72, styled protraction produced by rigidity and swelling of the soft parts, seems to have been a severe and distressing case, occasioned from congestion and its common attendants; and yet, from a very careful perusal of the account of it, as recorded in his work, we can perceive nothing in it but what we have often met with in cases which, by the due application of the ordinary means, terminated in from 9 to 12 hours after the commencement of labour. The termination of this labour, too, shows clearly the importance of attending to the removal of the obstructing causes to delivery, for in this case the strong spasmodic contractions of the uterus rendered it extremely difficult, after the perforation and extraction of the head, to remove the body. Cases 91, 92, 93, present no embarrassment that we can

perceive, which might not have been obviated. Case 95, though a very large child, and difficult to extract, even with the blunt hook fixed in the groin, yet, because the head was afterwards removed without any particular difficulty, and the pelvis being well formed, it appears, also, that this child might have been delivered without instrumental aid.

In the *Glasgow Medical Journal*, for October, 1833, a case is noticed, in a paper by Dr J. Maxwell, which requires to be particularly brought under consideration. The case is marked (*Case 7*). After the head of the child had rested nine hours on the perineum, it was delivered by means of the forceps; but after delivery had been so far accomplished, the spasmodic contractions of the uterus around the child's body held it so firmly, that it could not be extracted; 150 drops of laudanum were administered to the patient, which induced sleep, and it was two hours after the exhibition of the laudanum before the child's body was extracted.

This was certainly a most awkward situation for a woman to be in, particularly when the nature of her case was of such a description, in all its circumstances, as to bring it under that class of labours which may, by appropriate means, be terminated in as many hours from the commencement of labour, as the infant's head rested on the perineum.

We are occasionally made acquainted with the oc-

currence of such or similar cases, but they may be prevented by the timely use of the means advised in the treatment of protracted labours.

Dr Davis, in our opinion, states very judiciously, that "the want of sufficient power, as an inherent principle of the parturient organs, is of extremely rare occurrence; and indeed," says he, "I am myself disposed to doubt its existence, excepting as an effect of its exhaustion from long-continued action, or as an accompaniment of some important disease of the uterine system."

Like the views and statements of Dr Burns, those which Dr Davis advances above, show an approach to that knowledge of the obstructing causes to uterine action, which must be duly understood and well considered by all who would endeavour to do justice to the parturient woman. But though Dr Davis has made the above lucid observations, yet he seems, from his cases, to have had no conception how to prevent or remedy that state of the expulsive apparatus which renders instrumental aid so often necessary; for had the usual means advised in our observations been used within five or six hours after the commencement of labour, that feebleness and unproductiveness of the pains, which he notices, would not have occurred, and consequently, the instrumental assistance to which he was necessitated to have recourse, would not have been required.

Dr Collins is of opinion, that the circumstance of the head remaining *quite stationary* after the dilatation of the os uteri, for a certain number of hours, although the pains have continued all the time, is a surer proof of some impassable obstruction than any which can be drawn from the most accurate manual examination.

Whatever may be the weight which Dr Collins attaches to manual examinations, for the purpose of ascertaining impassable obstructions in the pelvis, one thing we are fully satisfied of, that but little weight should be laid on the fixed position of the child's head after the dilatation of the os uteri for a certain number of hours, as a sure proof of an impassable obstruction. For, in many instances, and perhaps in the great majority of cases in which the perforator is employed, the principal cause which renders the application of this instrument necessary, is a morbid condition of the uterus itself, which may, in almost every instance, be so far removed as to enable the expulsive powers to effect delivery, without either manual or instrumental aid. From what we have now stated, as well as from what was formerly advanced, we trust it will scarcely be admitted by any one, that the use of the perforator can possibly be required any thing like so frequently as has been practised by Dr Collins.

The same authority again states, "I have no difficulty in stating, and that after the most anxious and minute attention to this point, that when the patient

has been properly treated from the commencement of her labour, where strict attention has been paid to keep her cool, her mind easy; when stimulants of all kinds have been prohibited, and the necessary attention paid to the state of her bowels and bladder, that, under such management, the death of the child takes place, in laborious and difficult labours, before the symptoms become so alarming, as to cause any experienced physician to lessen the head. This is a fact," he says, "which I have ascertained, beyond all doubt, by the stethoscope, the use of which has exhibited to me the great errors I committed before I was acquainted with its application to midwifery."

As we have not practised the application of the stethoscope in midwifery cases, we cannot be supposed capable of appreciating its advantages; but our experience enables us to state, that the feeble and almost inanimate state in which we have seen many children born, when no vessel beat, no motion of any kind existed, yet, the all but lifeless infant, by other means than that of perforating its head, soon showed itself a living being, destined to render the mother oblivious of her late pangs. To depend upon the stethoscope then, in such cases, in order to ascertain the real state of the child, is in our opinion, undeniably, worse than delusion.

Dr Maunsell, we think, in his observations on the stethoscope, very judiciously remarks, "In many in-

stances it (the stethoscope) affords most valuable aid in investigations into the conditions of the uterus." "Instances," he further observes, "occur, and are acknowledged, in which the most expert stethoscopists cannot hear the foetal heart at all." "I have only to declare," says he, "that I have frequently heard the sound in question, and after the lapse of a few hours, or even on the change of the woman's position, have completely lost it; and, upon another alteration of circumstances, heard it as distinctly as at first."

Since, then, such difficulties arise in ascertaining the true state of the child when its heart and arteries are really beating strongly, there certainly cannot be two opinions regarding the impossibility of ascertaining the state of the child by motions and sounds which do not either audibly or tangibly exist.

From these views and statements, we think it must appear quite conclusive to every one, that we are at present possessed of no means, on which we can with certainty depend, for the purpose of ascertaining the real state of the child previous to its birth. And he who depends on the stethoscope to convey the necessary amount of information regarding the life or death of the infant in utero, must, in many instances, render it for ever impossible to ascertain to what extent vitality existed previous to the awful but fatal aim at the infant's brain.

We draw the attention of accoucheurs, and the

public generally, the more particularly to this subject, as we have good grounds for stating, that the work of Dr Collins is in reality made the text-book by some teachers of midwifery.

Velveau informs us, that when the neck of the uterus is so circumstanced that the efforts of the viscus cannot dilate it, it is dangerous to use incision.

Dr Daubois, however, states, that the incision of the neck of the uterus is both safely and easily performed, and that he has successfully performed it to relieve rigidity of the neck of the uterus, even when not cancerous.

However much we feel inclined to estimate highly the skill and dexterity possessed by this amiable and deservedly popular accoucheur, we can scarcely bring ourselves to believe, that a case can occur in which the unrestrained actions of the uterus will not be sufficiently powerful to dilate any rigidity that can occur at its neck. For, this rigidity, and supposed undilatability, will take place in those cases only in which the morbid condition of the viscus renders its expulsive powers inadequate to produce the dilatation required. Now, it will be self-evident, that the removing of the obstructing causes to the uterine efforts, will be tantamount to the removal of the rigidity of the neck of the uterus.

We have attended cases of this description, in which the strong irregular actions of the uterus seemed as if they would propel the child through its walls, and yet the rigidity of its neck, and that of the os uteri, re-

remained unaffected until the usual means for the removal of obstructions were employed, when, in every case, dilatation succeeded.

A case, of the description under consideration, occurred a few years ago in our neighbourhood, but we did not see it. According to the report of some who were present, the labour continued long and severe, without any change being produced on the orifice or neck of the uterus. The os uteri could be distinguished by the point of the finger as a small indentation only. The woman would not submit to the incision of the neck of the uterus, and she died undelivered. Inspection of the body after death was not permitted.

There is another class of cases in which protraction takes place, but it is not relievable in the usual way. The cause of protraction in such cases consists in a firm adventitious membranous-like body, which seems to take its rise from the edges of the os uteri, and completely covers the orifice. This occlusion is so neatly effected, that it is impossible to distinguish between the cementing matter and the external surface of the uterus. This peculiar state of the parts is very perplexing to the accoucheur, unless he be previously acquainted with its nature. In our experience only one case has occurred: indeed such cases are rarely met with.

The woman who was the subject of the case was about 40 years of age, and it was her first child.

The labour pains, from commencement, were strong, and apparently quite natural, yet, after they had continued for several hours, no os uteri could be discovered, though anxiously searched for in all directions where likely to be found. After a longer continuance of pain, the uterus, firmly grasping the head of the child, began to occupy the inlet of the pelvis; still, on most minuté examination, not a vestige of os uteri could be found. During the continuance of the labour pains, the presenting surface of the uterus became more and more prominent, and at length, as we continued to explore its expanded uniformity, a small breech of the smooth surface, just sufficient to admit the edge of the nail of the forefinger, was discovered. On making pressure on a circumscribed spot in the immediate neighbourhood of this small crevice, the parts yielded with greater facility than at other places, and we conjectured that probably the os uteri would be found at the most yielding point. Gentle, but steady pressure was now made with the point of the finger, against the small breech we had discovered, and by the continuance of very moderate force, the covering of the os uteri was so completely ruptured that we at once ascertained the nature of our case. From the effects of this binding body, the os uteri was still only dilated so as to admit the point of the finger; but the membranes soon ruptured, the pains increased in strength and efficiency, and the child was born, quite

active, within twelve hours after we arrived at the patient's house.

Professor Nægele, in 1837, makes some observations of difficult parturition from agglutination of the os uteri. He states that, sometimes, though rarely, all traces of the orifice of the os uteri are almost obliterated, which is embarrassing to the accoucheur.

As the professor qualifies his expression of obliteration by "almost," it is not improbable that, as in our own case, a small breach of the smooth surface may always be discovered by very close manipulation.

We trust, then, that by directing attention to the nature of such cases as we have been considering, and the manner of managing them, at least a cautious and considerate trial of the expedients will be made, and we predict that the greatest opponents to innovation will acknowledge the almost unerring results.

CHAPTER II.

CASES ILLUSTRATIVE OF THE FOREGOING
OBSERVATIONS.

Case 1.—THOUGH this case, strictly speaking, does not come under the observations founded on our attendance, from the commencement of labour, of the 423 cases formerly noticed—having been, for a considerable time, attended by a midwife before we were called; yet, as it was the first case, by the management of which we became fully satisfied of the correctness of our views regarding the treatment of protracted labours, we deem it the most suitable one to be first related.

Mrs M., when in labour of her first child, had been under the care of a midwife for three nights and two days before we were sent for. This young woman had enjoyed good health during her pregnancy.

The midwife informed us, that during the first six or eight hours after the commencement of labour, the pains were neither severe nor frequent; but after this period, to the time we arrived, they had been frequent and severe.

On examination now, per vaginam, we were surpris-

ed to find the os uteri dilated to about the size of a crown only, and the head of the child just begun to enter at the brim of the pelvis. The membranes were still unbroken, and even during a pain they felt to the touch quite flaccid.

The patient sometime before our arrival had become restless, her skin was considerably colder than natural, pulse quick and weak, tongue dry, but she did not incline for drink. She had been afflicted for a considerable time with an uneasy dull pain over the forehead. Urine passed freely, and the bowels sufficiently open.

Twenty ounces of blood were taken from the patient's arm, and she was ordered to drink freely of warm gruel or tea, in order to bring the body to a natural warmth. Light nourishing food was also allowed. Her feet being cold, bottles filled with warm water were applied to them. About fifteen or twenty minutes after the bleeding, 50 drops of laudanum were administered to the patient, and after giving the midwife directions how to conduct the case, we left her. We heard no more of our patient for about eight hours after we took our leave. On our arrival the second time, we were surprised to find the parturient woman deserted by her midwife, who declared she would stay no longer, as it was not a case which should be attended by her. We now learned from the inmates, that after the blood-letting, and other means prescribed, the patient became greatly easier for about two hours,

but after this period the pains resumed their former character in every respect, and scarcely any progress in the advancement of the child had been made during the eight hours of our absence. The continued harassing pains for the last six hours, had occasioned a slight degree of delirium, with an almost constant tossing in bed, from which it was difficult to restrain her. At this period she expressed a most anxious desire to be relieved by any means that could be employed, without any regard to the life of the child; but the head was still high up in the pelvis, and could be operated upon in no other way than by means of the crotchet. Although there was still no decisive evidence that the child was already dead, yet it was very clear, the woman could not long continue in safety in her present state. We now carefully examined the pelvis of the patient, and having satisfied ourselves that a child, by efficient labour pains, might pass through it, we resolved to subdue, if possible, the present ineffectual actions of the uterus, in hopes that, by so doing, the expulsive powers of the viscus would, in a short time, recover sufficient energy to expel the child without instrumental aid.

Before adopting this plan, however, we duly took into consideration how far it might be safe, after so tedious a labour and consequent debility, to risk the woman longer in the undelivered state.

In these deliberations it occurred to us that, as no

inconvenience arises either to the mother or child in those cases of labours in which the pains, for a considerable number of hours, become naturally suspended, neither would there be any particular increase of danger by suspending the pains by art, especially when the child remained so high in the pelvis, the bowels open, and the urine passed. Having speedily come to this resolution, we immediately administered to the patient $3\frac{1}{2}$ grains of solid opium, in the form of pills.

In less than an hour after she had swallowed this, she became comparatively easy, and lay much longer in one posture. The skin recovered its natural warmth, and the pulse grew stronger and less frequent. We now left her for a short time, requesting to be sent for should any change take place. In less than an hour we were summoned to attend instantly, as the woman was very ill. As we did not expect that her increased illness arose from natural pains, we took along with us the crotchet, not doubting but that it must be employed for the delivery of the child. On our arrival, we were agreeably disappointed, on examination per vaginam, to find the child's head far advanced into the cavity of the pelvis, and all the parts relaxed and yielding during each pain. The child was born alive, and very active, three hours and a half after the opium pill had been administered.

This was a case of very pure congestion, accom-

panied with a high degree of morbid sensibility, acting as causes of obstruction to the natural effectual efforts of the expulsive organs. The bleeding and open state of bowels obviated the obstruction sufficiently, so far as the congestion was concerned, but the first opiate was not sufficiently powerful to subdue that acute state of the sensibility which completely restrained the actions of the expelling powers.

This is one of that kind of cases in which all the conceivable names of arrest, impaction, and so forth, are got up to sanction idleness and ignorance to deprive the infant of existence by a fatal instrument. We have said idleness and ignorance—for we can scarcely conceive it possible, that men could have remained so long in ignorance of the true causes of delay and its remedies in labour, had it not been from a strong propensity to idleness, in the consideration of a subject of so great importance, and of every day's occurrence.

Case 2.—Mrs B., aged 38, came under our care, when in labour of her second child.

During Mrs B.'s pregnancy she had enjoyed a tolerable state of health, but for several months previous to her confinement she had been occasionally seized with violent colic pains of bowels, which, leaving no perceptible bad effects, were not particularly attended to.

On the night previous to her confinement, her husband called on us to say that his wife was complaining, and probably we would be wanted during the

night; but we heard nothing farther of our patient till next day about noon, when we called on her. She was now seated in an easy chair near the fire, and stated that she had been so placed the greater part of the night, being always more uneasy when she lay down in bed. Her general aspect showed, very distinctly, that she had passed an uneasy night.

The lips were dry and covered with a brownish crust, tongue moist, but both it and mouth were covered with a disagreeable tenacious saliva; skin moist, but its temperature was considerably below the natural standard; pulse soft, tolerably full and natural in the number of its beats. Little thirst, some appetite, bowels open, urine passed.

Though our patient gave an account of considerable suffering she had experienced during the night, yet it was easy to predict, from the nature of the pains, that labour had as yet scarcely commenced; and on examination, per vaginam, this prediction was soon verified; for the os uteri was still thick and rigid, and so little dilated as to leave it doubtful whether the woman was really in labour. During a pain too, the presenting part of the child was not pressed against the os uteri; on the contrary, the parts within seemed to be dragged upwards.

With a view to regulate these jarring and morbid operations of the expulsive powers, 16 ounces of blood were taken from her arm, and a dose of castor

oil ordered to be given half an hour afterwards. She was also enjoined to lie more in bed than she had done during the night, and to take repeated small draughts of some warm watery beverage, in order to restore a more agreeable heat over the body. We now left her. On our return, about three hours after she had been bled, we learned that the pains had been frequent and severe, but still they continued unproductive, the rigidity of the os uteri being but little altered. As the castor oil had not operated, a clyster of the usual description was administered, which, after being retained about fifteen minutes, was discharged, along with a copious fæculent stool. The blood which had been drawn was soon covered with a bluish buffy crust, the blood itself being of a very dark colour. Both castor oil and clyster operated only once, another symptom that the labour would be severe and obstinate; for, in ordinary cases, the clyster, without a purgative, will operate repeatedly.

A short time after the clyster had been discharged, another examination was made, when the edges of the os uteri were found to be thinner and more yielding; still the dilatation was but little increased, and the head of the child, during a strong pain, was propelled but slightly against the os uteri. Indeed the uterus, even at this period, resembled a distended bladder, at every point of which there was a uniform resistance, and consequently nothing could escape.

From what has been said, we may be anticipated when we state that, in this distressing labour, the prominent retarding causes to delivery were congestion, excess of sensibility, and strong spasmodic contractions of the uterus. In order to relieve such unprofitable suffering, 60 drops of laudanum were given to the patient about three hours and a half after she had been bled. She was now allowed to walk about the room, or lie in bed, as she felt inclined. The room was kept cool and well ventilated, as it should always be in such labours. At the expiration of an hour after the first dose of laudanum had been given, the labour pains continuing equally severe and inefficient, other 60 drops were administered. In less than half an hour afterwards, the violent harrassing pains became greatly mitigated, and the patient, in a great measure, ceased to complain. The pains now continued more natural and effectual for the space of two hours, but after this period they resumed their former character, becoming so frequent and agonizing, that the patient became almost unmanageable, declaring it was impossible she could live longer under sufferings so grievous. The child's head by this time had considerably advanced into the cavity of the pelvis, but was not within reach of the forceps; the os uteri was fully dilated, and the liquor amnii had been some time discharged. In this tortured condition the patient continued for a full hour, without any advancement of the child. As we had not

met with any case of so great obstinacy and severity since commencing our present mode of treatment, we felt some difficulty regarding the course we ought to pursue; for being well aware of the unfavourable views held by the profession, of giving full doses of laudanum in childbed cases, this mischievous and unfounded notion entered, for a moment, into our brain, and tended to paralyze us in acting upon our original well-grounded opinions. For in our momentary suspense, we imagined that an additional dose of laudanum would most prejudicially increase the general torpor and inefficiency of the expulsive powers of the uterus; and consequently aggravate the evil we were endeavouring to lessen. At this critical moment, the patient's skin was colder than natural, but still covered with a coldish perspiration. The abdomen, below the umbilicus, particularly over the region of the bladder, felt to the touch almost as hard as a board, and exceedingly tender when pressed with the hand; pulse 100, soft, and easily compressed; breathing pretty natural; urine passed. She was now averse to, and in a great measure incapable of motion; no appetite or desire for drink. In this stage and state of the labour, it occurred to us that the ergot of rye might be useful, and although we had never employed it in childbed cases of any kind, we resolved to give it a trial. As we had none of it in our possession, we left our patient for a short time in order to procure it; but in

this attempt we were disappointed. On return to our patient, we found her lying on bed, almost like a mass of inanimate matter, only leaving the spot on which she lay when moved by assistants, and by this time she was incessantly, in a plaintive tone of voice, complaining from the now continuous agonizing pains.

It now appeared to us, that there was no alternative left, but that of either pushing our former plan to its full extent, or calling in a medical friend to our assistance, for the head of the child had not yet come within the grasp of the forceps.

After we had duly taken into consideration all the circumstances of the case, and compared it with cases somewhat analogous, in which the usual treatment proved successful, we at once resolved to follow out the treatment with which we had commenced. Another stimulating clyster was administered, which was in a very short time returned nearly unaltered in appearance. As soon as the patient had recovered from the fatigue of the clyster, 12 ounces of blood were taken from her arm, which produced weakness and paleness of face. The arm was now bound up; and in about fifteen or twenty minutes after the weakness from the bleeding had gone off, a third dose of 60 drops of laudanum was given to the patient. It is always improper to give laudanum either immediately before or after bleeding, as the weakness induced is apt to cause vomiting. From the flat and feeble

state in which the patient was when this third dose was administered, it was given in a little whisky and warm water.

In about half an hour after employing these means, the violence of the symptoms became greatly mitigated, and in less than an hour the labour pains assumed a natural type, and the child was born alive and active about three hours after the last dose of laudanum, and about thirteen hours after actual labour had commenced.

It will not for a moment be urged that this woman and her child were in danger from the duration of the labour: it was from its obstinacy to yield to moderate means, its nature, and its violence, that danger arose.

No other mode of treatment, than that pursued by us in this case, could have terminated the labour favourably; for from any thing that we have known or seen of the operations of the ergot of rye, since we have attended this woman, we can pretty confidently state, that in such a state of the expulsive apparatus, had the child been expelled by the influence of the ergot, it would have been born dead. On the other hand, had the crotchet been employed, the child would not only have been destroyed, but unless the full quantity of laudanum had been previously administered to subdue the powerful spasmodic actions of the uterus, the force required in the extraction of the child would

have been so great, as to endanger the life even of the mother.

Case 3.—Mrs C., aged 19, came under our care of her first child.

Previous to becoming pregnant, she had enjoyed a good state of health, but soon after impregnation she was seized with violent pain in the region of the liver, accompanied with other inflammatory symptoms. By bleeding and other means she speedily recovered; but from repeatedly and incautiously exposing herself to cold, she had repeated attacks of the same description to the very period of her confinement. She was seized with the last attack only four or five days previous to the coming on of labour pains; but she was three or four days ill before we were requested to see her, or before labour pains were indicated. Even when we called on her, she informed us that she wanted a month of her full time, and did not anticipate labour. However, the continuance of the pains, as well as their severity, rendered the protraction of delivery another month very doubtful.

On making an investigation per vaginam, the os uteri was found but little dilated; yet the uterus, holding very firmly in its grasp the head of the child, occupied fully the entrance of the pelvis. As her bowels were in a sufficiently soluble state by means of laxatives, and as she was by this time weak, emaciated, and fatigued from continued disease and pain, we consi-

dered the best and safest remedies for her, in her present state, was opium, in such doses as to subdue pain and enable her to lie easily in bed. For this purpose two grains of opium were ordered to be taken every two hours until she was easier, or until six grains were taken. These means were prescribed early in the evening, and as we were called to another midwifery case, we did not see our patient again till next day about noon; when we learned that all the pills had been used without relief. Another examination was now made, when the os uteri was found but little altered from the state in which it was on the previous afternoon; however, there was some mucous discharge from the vagina, and the uterus, with the head of the child still as firmly impacted in it as before, had descended farther into the cavity of the pelvis. There remained no doubt now that labour had commenced; the pains were both frequent and severe, and with a view to render them more efficient, a purgative was immediately administered, which operated copiously in about three hours after it had been taken. On examination after the operation of the purgative, the os uteri still remained rigid and undilated, and that part of the uterus, still grasping the head of the child, felt to the touch as hard as a solid mass of bone. The patient about this time felt exceedingly weak, uneasy, and restless; skin hot, pulse quick, considerable thirst, no appetite; urine passed. No doubt

now remained that delay arose, in a considerable degree, from an inflammatory state of the uterine system, and that blood-letting would be necessary in order to relax the extreme rigidity and spasmodic contractions; but the patient was so apparently weak, and really emaciated, that we were almost as much afraid to perform as to propose the operation. The pains by this time were so intolerable, that the patient was willing to submit to any means calculated to give relief, and we had no sooner proposed bleeding than she consented; the by-standers remained silent. The arm was bound up—and one more emaciated can scarcely be imagined—and 12 ounces of blood extracted, when she became weak, when the bleeding was stopped. In less than half an hour after she was bled, two grains of opium were given to the patient, with a view to subdue excess of sensibility, and other retarding causes to delivery; and in less than an hour afterwards, the pains began to be stronger and more efficient, and delivery was effected two hours after the opium was administered, the child being quite active. This labour terminated twelve hours after actual bearing pains commenced.

Whether this case would have terminated sooner if the patient had been bled on the preceding day, we are unable to decide; but we are of opinion, that where so great debility prevails, and so long-continued disease has existed, other means should always be

tried before having recourse to the lancet. In this instance it is very clearly exemplified, that in uterine affections, accompanied with strong inflammatory action, in childbearing cases, opium will not subdue pain and induce natural expulsive efforts of the uterus, until an impression is made on the complaints by bleeding. For in this instance, in which emaciation was so great, and the bowels well emptied of their contents, little change took place, in any respect, until the patient was bled. Indeed, it is in such cases that so much blame is thrown on the use of opium, when, in truth, the blame rests with the accoucheur himself; for in every case, so far as we know, in which he has attached blame to the employment of opium in suspending uterine action, or rendering the use of instruments necessary, the fault consisted in not removing the inflammatory or congestive state of the expelling powers, previous to administering the opium.

We should never judge of the state of the uterus by the state of the patient; for the former is often possessed of great energy, when untrammelled, although the latter may appear in a frightful state of depression.

Case 4.—This case shows the beneficial effects of laudanum without the assistance of bleeding—excess of sensibility being the predominant cause of delay.

Mrs C., a delicate and timid female, came under our care when in labour of her third child. She had been

about an hour in considerable pain before we were sent for ; and on our arrival we found the pains both frequent and severe, but quite inefficient. The bowels were in a sufficiently soluble state, skin and pulse natural, urine regularly passed ; abdomen perfectly free from hardness or tenderness in the intervals of the pains ; at which period too, the patient was without complaint. As no particular morbid symptom appeared in this case, we anticipated that, in a short time, the labour would assume a favourable character, and terminate in a few hours, without the assistance of medical or surgical means. Our expectations, however, were disappointed ; for in three hours after our arrival, the pains became more aggravated, though still ineffectual. On examination the parts felt cool, soft, and yielding ; the os uteri was dilated to about the size of a shilling, and was neither rigid nor its edges thick. Under all these favourable circumstances, however, her sufferings were so severe, that it was difficult to restrain her from constant tossing in bed, which raised apprehensions in our minds, that unless means were used to modify pains so grinding and acute, some serious accident would happen to the uterus itself. After viewing our case in all its bearings, and finding the symptoms nearly the same as at the commencement of labour, but yet the abdomen not being tender to the touch, we concluded that the principal obstructing cause was excess of sensibility of the uterus, greatly

aggravated whenever the viscus resumed its expulsive efforts. This excessive pain so completely restrained the efficient actions of the uterus, as to render them inadequate to the expulsion of the child. Having come to this conclusion, we, without any preparation, administered 50 drops of laudanum to the patient, with the view of subduing the excessive pain; and this quantity was repeated every hour and half, till three doses, or 150 drops were given. This mode of treatment had the desired effect; for, about one hour after the last dose was exhibited, the child was born in a healthy state. This labour also terminated in about twelve hours after we arrived at the patient's house.

In this case the laudanum produced a very great degree of confusion and giddiness of head, of which the patient complained in no small degree, but these led to no inconvenient result, and soon disappeared.

Had this case not been duly considered, and treated according to its real symptoms, it must have continued many hours longer, and certainly not without danger to the uterus; besides, debilitating means, as bleeding, might have been unnecessarily employed, and with prejudice to the delicate female; for though she was not so apparently weak as the one who was the subject of the preceding case, yet as no inflammatory or congestive symptom existed, bleeding was, at least, rendered a more doubtful remedy.

Few cases of so great violence, exactly of this de-

scription, are met with ; but many labours occur in which, with an open state of bowels, or by administering the clyster, 60 drops of laudanum exhibited twice in the course of one hour, will bring the labour to a speedy termination.

Case 5.—Mrs H. summoned us to attend her when taken in labour of her first child. Her husband called on us early in the morning to say, that probably we would soon be wanted, as his wife had been complaining during the night. After we had questioned him regarding the state of her bowels, we advised a dose of castor oil to be given immediately. Mrs H. is about 28 years of age, is above the usual size, and enjoyed good health during her pregnancy. Our first visit was paid at eleven forenoon, when we learned that the oil had not operated. She complained considerably of the pains, which were frequent, but as they produced no effect on the os uteri, which could scarcely be said to have begun to dilate, we could not assure ourselves that the pains would continue, or that the woman was really in labour. The castor oil operated at twelve mid-day, and as no disagreeable symptom was then present, the labour was allowed to go on uninterruptedly. At four afternoon the os uteri was less rigid, and considerably dilated, and the pains from this time till eight o'clock evening, considerably advanced the child. From this period, however, till ten o'clock, the pains were severe, but inefficient, rendering the

patient dull and listless, with cool skin, and pulse of natural quickness. She had now an incessant desire to make urine, which was passed with difficulty, and in very small quantities. With a view to relieve these symptoms, the patient was bled to 16 ounces, when she became weak. The blood on cooling was covered with a slight buffy coat. The pains, soon after the bleeding, improved considerably, and continued to advance the child slowly, for about two hours, when they again became quite ineffectual, though equally severe. The liquor amnii had been some time discharged. Difficult micturition still continued unabated, which added greatly to the patient's suffering, and in order to alleviate this symptom, a stimulating clyster was administered; but still on discharging it, no urine was perceptibly passed, nor relief obtained; yet, as the urine had been freely passed three hours before, it was not considered that much could be in the bladder. As soon as the clyster was discharged, 60 drops of laudanum were given to the patient, and as the pains were unchanged at the end of an hour, other 60 drops were exhibited. The second dose of laudanum had not been long given till the pains became both easier and seldomer, but still the urinary complaint continued, which induced us to introduce the catheter, when only about four ounces of urine were obtained. The urine had been but a short time drawn off, when the pains resumed their former inefficacious operations, although

they continued grievously distressing to the patient, who fell into so unwieldy and torpid a state as rendered her almost incapable of motion. The lower part of belly was now hard and tender to the touch; the os uteri was well dilated, and the head of the child considerably advanced into the cavity of the pelvis, but not so far as to enable us to apply the forceps. A second bleeding, and a third dose of laudanum were now indicated, but the friends were unfavourable to further bleeding; and from the great torpor that appeared to pervade the system generally, we were apprehensive that a third dose of laudanum, without further bleeding, might prove pernicious, by rendering the labour more protracted. Impressed a second time by these unfounded notions, and having by this time procured a quantity of the ergot of rye, we resolved on making trial of it, particularly as our case was in a state, according to authorities, favourable for its employment.

The ergot was prepared and administered in the manner formerly noticed in the treatment of protracted labours. In about ten minutes after the first half was given, strong effective pains came on, and continued to advance the child slowly for nearly half an hour, when they began to decline, and immediately the second half was exhibited. The second dose of the ergot operated in a manner similar to the first, and the child was expelled apparently lifeless an hour after the first of the ergot was given.

This is the case to which we formerly referred as the only still-born child which was met with in the 423 cases. The result of this delivery, as regards the child, disappointed us very much; for although, when born, it was flaccid and apparently lifeless, yet as a slight pulsation could be felt in the umbilical vessels, we entertained no doubt whatever, that by careful resuscitation the child would be restored. The exertions made for this purpose will be noticed in the proper place.

We unhesitatingly come forward to state that the protraction of delivery, and the unfortunate termination, as regards the child, depended entirely on the improper manner in which the labour was conducted; but after anxious and minute consideration of every symptom and occurrence, which showed itself during this labour, we trust our eyes have been opened, never to be shut again, by our own imaginary notions, or the delusive opinions of others.

If this case had been treated as we have advised in the preceding observations, and as we practised in all the subsequent cases, there is not a shadow of doubt that the case would have terminated within twelve hours after the commencement of labour, and that the child would have been born alive. It was the giving of the ergot, previous to subduing further the obstructing causes to delivery by the third dose of laudanum, which caused the death of the child; for had the laudanum been given, the ergot would have been quite innocuous.

This child was born about eighteen hours after our first visit, but as labour did not distinctly commence until between three and four o'clock afternoon, the woman could not be said to be in labour more than fourteen hours.

Case 6.—This case was accompanied with as pure inflammatory symptoms as any that has come under our care.

Mrs W. requested us to attend her when in labour of her second child. This patient, who is about 36 years of age, had enjoyed good health during the pregnancy, except the two last weeks of it, when she was affected with a slight cold.

She had been some time in severe pain before we were sent for, and on our arrival, although we could scarcely say the labour had commenced, the violence of the pains was so extreme that we could not leave the house till the patient was delivered. At our call, we learned that the bowels were sufficiently relaxed; the patient had considerable thirst, and the skin was hot; pulse quick and sharp; urine was easily passed; os uteri close and rigid.

The labour was allowed to go on without interruption for two hours, at the end of which time it was manifest, that unless some alleviating measures were adopted, dangerous consequences would result; for although we have never had any connexion with a case of labour in which rupture of the uterus occurred,

yet the extreme violence, and almost uninterrupted recurrence of the pains, in this case, convinced us, that without appropriate treatment, the organ was in danger from this accident.

In order to obviate the violence of these symptoms, the woman was freely bled from the arm, and soon afterwards 60 drops of laudanum were administered. These means had no effect whatever in mitigating the severity of the pains, or improving the nature of the labour, and, an hour after the first dose of laudanum, a second was exhibited. Between one and two hours after giving the second dose of laudanum, the patient's sufferings were but very little alleviated; the heat of skin, rapidity, and strength of pulse, were considerably increased. The patient was again freely bled at the arm until the face became pale, and as soon as the weakness went off, a third dose of 60 drops of laudanum was administered. In less than an hour after these last means were employed, the rigidity of the parts became relaxed, and efficient labour pains came on, which expelled the child alive two hours after the third dose of laudanum had been given, and nine hours after the commencement of labour. As soon as the head and shoulders of this child were born, the pains instantly and entirely ceased; and the remaining portion of the child remained rigidly held in the uterus, by the strong spasmodic contractions of the viscus. We waited in expectation of a return of pains to expel the

retained portion of the child, as long as we considered the infant in safety, but as not the slightest indication of pain occurred, we extracted it by force; yet notwithstanding the powerful and active means used to subdue the morbid condition of this woman's uterus, it was remarkable how much force was still required to remove the body and extremities of the infant from its spasmodic grasp. It deserves notice, that the blood drawn in this case exhibited a more dense and thick buffy coat than is generally met with in childbed cases.

No example, we think, can be brought forward to evince more clearly the good effects of appropriate remedies, in accelerating and rendering safe, the delivery of women who are labouring under extremely agonizing and inefficient pains.

Case 7.—Mrs J., aged about 26 years, sent for us about nine o'clock evening, supposing herself taken in labour of her first child. On our arrival, we learned that she had been in considerable pain two hours before we were sent for. A short time before we entered the house, the pains had completely ceased; and though we waited a considerable time in expectation of their return, no tendency to pain existed. We now made an examination per vaginam, and found that the os uteri was not in the least dilated. Sixty drops of laudanum were administered to the patient, and we took our leave. We were not again summoned until ten o'clock on the following forenoon. We were then

informed that, with the exception of one attack of pain, soon after our departure, the patient remained easy, and slept the greater part of the night—the regular pains coming on about two hours before we were again sent for. An examination was now made, and the os uteri found considerably dilated, and its edges thin and relaxed; but although the pains were frequent and severe, scarcely any advancement of the child was effected. About twelve o'clock noon, the patient became hot, pulse quick, and she complained of considerable thirst; the vagina and os uteri felt hot and less disposed to relax than at our former examination. The patient was now bled to 18 ounces, and soon afterwards the clyster was exhibited, which, after being retained a few minutes, was discharged along with a copious fæculent stool. The pains from this time improved, and continued for about two hours to advance the child; but after this period they became inefficacious, yet extremely severe. Sixty drops of laudanum were now administered, and as no mitigation of suffering was experienced at the end of an hour after the first dose of laudanum was given, a second dose of 60 drops was repeated. About an hour after the second dose of laudanum had been given, the pains were less frequent and more effectual, and the patient endured them without much complaint. The labour now went on progressively, and the child was born about five o'clock afternoon, and about nine hours after the commencement of labour.

This labour took place in the month of June, and, from the great heat of the weather, the smallness of the apartment, the severe and almost unceasing pains with which the patient was afflicted previous to delivery, produced, immediately after the child's head was born, so great a degree of exhaustion, as is but seldom witnessed after a labour of so short duration. From this exhausted state of the patient, the head of the child was no sooner born, than the uterine action totally ceased; and although we waited a considerable time for the return of pains, none occurred, and we were obliged to extract the shoulders and body of the child by force; yet, by doing so very slowly, the action of the uterus returned, by which the lower extremities were expelled.

The exhausted state of this woman after the child's head was expelled, and the means used during labour, rendered the extraction of her child sufficiently easy, when compared with what took place in the preceding labour. In both cases, however, had the usual means of relief not been fully used, the labours would have been extremely tedious, the children both lost, and the mothers undoubtedly exposed to great danger.

Some degree of flooding took place in this case, and the child was apparently born dead; both circumstances will be noticed in their proper places.

Case 8.—Mrs P. sent for us in the evening to attend her in labour. She informed us that it was

her seventh pregnancy; that her health, during the latter months of it, had been very indifferent; and for the last eight days and nights she had not slept any; her appetite also had entirely left her. From these circumstances she was both weak and greatly emaciated. We remained with our patient until she took several pains, but on examination per vaginam, it was clear they were of a spurious nature; accordingly we gave her 60 drops of laudanum, and took our leave. Next morning when we called, she said that she had vomited repeatedly during the night, but the pains did not trouble her; and as she was still easy, we again left her. We were not again summoned till the following morning. On our visit now, the pains appeared of a genuine description, and on examination per vaginam, although the os uteri was but little dilated, yet the pains had the effect of rendering its edges tense, and its orifice more capacious. During the subsequent two hours after our arrival at the patient's house, the pains continued frequent and severe; yet at the end of this period, no perceptible change had taken place on the os uteri. As she had now been about three hours in labour, 60 drops of laudanum were administered, with a view to modify the unavailing uterine actions; and as no alteration whatever took place at the expiration of an hour after the laudanum was given, a second and similar dose was exhibited. These two full doses of laudanum had no effect in abating either the frequency

or violence of the pains, and although we waited patiently for an hour after the second dose was given, in expectation of a favourable change, yet the pains continued as inefficient as at the commencement of labour.

The patient by this time was suffering under most agonizing pains, producing slight delirium; she could scarcely move in bed; belly hard and painful, considerable heat of skin, pulse accelerated. From a review of the case, under all the circumstances, it was evident that nothing short of bleeding would safely relieve the patient, and save her child; and however objectionable such a course may appear in cases of so long-continued disease, and so great emaciation, yet, with us, it has always been a safe one, and should always be had recourse to, as soon as other means have been proved to be ineffectual. In this case, as in almost every other, when the patient is in great suffering, she at once submitted to be bled; and about 10 or 12 ounces were only extracted, when she felt weak, and the bleeding was immediately stopped. In less than an hour, and just before the usual time of giving the third dose of laudanum, the pains became quite efficient, and, in a short time afterwards, the child was born. This woman's immediately succeeding labour was almost, in every respect, similar to the preceding: both terminated in about ten hours.

This is another very clear case, in which the use of

opium proves ineffectual when inappropriately employed; for no sooner was the vascular tension in the uterus lessened by the abstraction of blood, than the laudanum previously given showed itself sufficiently powerful to subdue the excess of sensibility and the other resisting causes to delivery.

Case 9.—Mrs H. requested us to attend her in labour. When we arrived at the patient's house, we were informed that she had been a considerable time in labour. The os uteri was dilated to about the size of a shilling, and its edges were thin and yielding, pulse natural, bowels open, urine regularly passed. After we had waited with the patient two hours, the pains continuing frequent and severe all the time, we made another examination, but were disappointed to find the os uteri unaltered, and the child not farther advanced into the pelvis.

Sixty drops of laudanum were now administered to the patient, but they had no effect in improving the pains. When we first arrived, the patient informed us, that her bowels had been in a very open state for several days; but on making farther inquiry, she stated that, although she had had a frequent desire to go to stool, she passed almost nothing from the bowels for the last twenty-four hours. Having received this information, and being convinced that, after all, the bowels were loaded, we immediately resolved to administer a clyster; but before doing so, a pretty free bleeding was taken from

the arm. Soon after the patient was bled, we endeavoured to administer the clyster, but the sphincter ani was so relaxed, open, and powerless, that the contents of the bag had no sooner passed through the pipe into the gut, than they were returned. From the debilitating effects of these operations, the patient now felt weak, and as there appeared to be so great a relaxation in all the outlets, it was obvious that scarcely could any case occur more favourable to the employment of the ergot of rye. It was prepared and administered in the usual way, and the child was born an hour after it was first exhibited.

Although this case terminated favourably, yet it was not conducted so well as it should have been, nor in the manner we are now in the habit of managing similar cases. For the pains, after both laudanum and bleeding had been used, continued severe and ineffectual, indicating that spasm and excess of sensibility were still too considerable for the exhibition of the ergot of rye, so that the child might be safely expelled. A second, or even a third dose of laudanum, therefore, should have been given previous to the ergot. These usual quantities of laudanum are always safe, both as regards mother and child; and when labour pains are severe and ineffectual, all the usual means advised in protracted labours should be employed previous to giving the ergot of rye. In this case, the protracting causes not having been sufficiently

subdued when the ergot was given, we had almost lost our child; and, probably, had delivery been a very few minutes longer delayed, the child would have been dead: for, although it was born alive, it was necessary to inflate its lungs repeatedly by art, before it was capable of respiring naturally.

Every accoucheur, then, who is desirous to enjoy that peace of mind which a conscious sense of having done his duty can only yield, must, in every instance in which he deems it his duty to administer the ergot of rye, consider his case duly in all its varied circumstances; for he may, with almost equal facility and certainty, deprive the infant in utero of its existence, by an unskilful application of the ergot of rye, as by his deadly aim at its brain by the perforator.

Case 10.—Mrs S. sent for us about five o'clock morning, considering that she was seized with labour pains. Mrs S. is of a very weakly constitution, and has been during her pregnancy, this being her first child, in a very indifferent state of health. When we arrived at her house the pains were continuing, but were neither severe nor frequent; they were principally confined to lower part of belly. Her bowels were sufficiently open, and no urgent or disagreeable symptom was present. On examination per vaginam, the os uteri was placed so high up, and so much turned towards the sacrum, that it was difficult to reach it with the finger. We remained an hour with our

patient, and as no distinct symptoms of labour occurred, we gave her 40 drops of laudanum, and took our leave. As we were not sent for, we did not call on our patient till one o'clock afternoon of the same day, when we were informed that, between seven and nine morning, she had had a very tranquil sleep. The os uteri was more naturally situated now than at our former visit, and its orifice was dilated so as easily to admit the point of the finger, but its edges were still thick and rigid. No doubt could now exist that labour had commenced; but its every aspect indicated that, without the most active measures, delay and difficulty were certain. Half an ounce of castor oil was now given to the patient, and we again took our leave. About two hours after the oil was given, the pains became more severe, when we were summoned to attend. The oil not having operated, we, immediately on our arrival, administered the stimulating clyster, which, in a short time afterwards, was discharged, bringing along with it a copious fæculent discharge. The pains, after the operation of the clyster, became more frequent and severe, but still continued unproductive. At six o'clock evening, 60 drops of laudanum were administered; but, at the expiration of an hour, no mitigation of her sufferings took place. From the very delicate state of her health, she was extremely averse to be bled; and, from the cool state of her skin and undisturbed pulse, no doubt existed in our mind that

uterine congestion was so great, that nothing short of bleeding would render the pains effective. At seven o'clock, when she submitted to be bled, we can scarcely imagine a human being in greater suffering, and every moment we were afraid that the unceasing and excruciating grinding pains would produce rupture of the uterus; for it is in such cases exactly, that rupture takes place.—See Robertson's cases formerly referred to.

The patient was now bled to 20 ounces, when she became weak; and, as soon as she recovered from the effects of the bleeding, other 60 drops of laudanum were given. The blood on cooling was covered with a thin buffy coat. An hour elapsed, after the bleeding and second dose of laudanum, before the least abatement of suffering was experienced; and all the time, the patient being in an almost unconscious state, it was difficult to restrain her from constant tossing in bed. Fortunately, however, about an hour and a half after the second dose of laudanum, the pains were so far moderated that the patient was enabled to lie without tossing. The os uteri, too, began to dilate more fully, and the head of the child to advance into the cavity of the pelvis. Still the pains, particularly at lower part of belly, were scarcely bearable; but the constant inclination to vomit which the patient experienced for some time past, prevented the third dose of laudanum from being given so early as otherwise it would have been.

Although the sickness at stomach still continued, yet the severity and inefficiency of the pains induced us to make trial of the third dose of laudanum, and, contrary to our expectation, it remained on the stomach a considerable time, and quite long enough to regulate and render effective the actions of the uterus; for the labour, after its use, went on progressively, and the child was born at ten o'clock evening.

This woman was only between nine and ten hours in actual labour, and yet so great was the effects of the violent uterine action on the child, that it was necessary to inflate, repeatedly, its lungs before it was enabled to respire by its own efforts. Now, this is another instance in which the child's death would have been certain, had the ergot of rye been used previous to the giving of the third dose of laudanum; and to what an undue length must the labour have extended, to say nothing of the danger, had it not been treated as we have described?

Case 11.—Mrs A. requested us to pay her an early visit, as she considered herself to be seized with labour pains. We called at ten forenoon, when she informed us that the liquor amnii had been discharged about seven morning, without pain. Mrs A., at the early part of this pregnancy, was repeatedly threatened with abortion. On examination per vaginam, the os uteri was only dilated to about the size of a shilling, and was situated so very high that we could not dis-

tinctly ascertain the presenting part of the child. From the absence, however, of that prominence and firmness which we generally feel when the head presents, we were apprehensive that the presentation was some other portion of the child, and when our hand was withdrawn it was smeared with meconium. The labour was now allowed to proceed without the use of any means for the space of three hours, and as no progress was making at the end of this period, a dose of castor oil was given to the patient, and three hours afterwards the usual clyster was administered.

By these means the bowels were freely and repeatedly evacuated. The pulse was quite natural, both in frequency and strength; skin colder than natural; neither thirst nor appetite. With a view to improve the efficiency of the pains, 60 drops of laudanum were administered to the patient. This single dose operated very favourably, for in less than an hour after it was swallowed, the pains became less frequent and more effectual, so that the os uteri was soon so far dilated as to enable us easily to discover the presenting part to be the breech. This improved state of the labour did not continue long; in a short time the pains were as ineffectual as at commencement; which rendered it necessary to give a second dose of laudanum, and extract 18 ounces of blood from the arm. The blood, as in all congestive forms of labour, exhibited, on cooling, only a very thin buffy

coat. The pains still continued exceedingly severe, but the obstructing causes were considerably subdued, and the child advanced slowly. All at once, however, about two hours after the bleeding, the pains assumed the same form as in the early part of the labour, but were more distressingly painful. The third dose of laudanum was now about to be given, when the patient urgently requested a little tea and bread, which was granted to her, and, on this account, the laudanum was deferred for an hour longer, when it was administered. The last of these three doses of laudanum, of 60 drops each, had no other effect on the labour than lessening the frequency of the pains, and rendering the interval between them so much longer and more free from pain as to enable the patient to enjoy short sleeps. Yet, although the labour so continued for two hours, the child was very little advanced. It is worthy of notice, that this is the only instance, out of a considerable number, in which the third dose of laudanum failed in restoring more efficient pains.

About eleven o'clock at night, and three hours after the third dose of laudanum had been given, the following was the state of the patient: She had no bad symptom, but the pains were very severe, which made her apprehensive that she would never bear the child; pulse 100; breathing after a pain rather hurried; skin hot, and covered with perspiration; no urine passed for four hours; no hardness nor pain at the lower part

of belly; the presenting part of child was within a small space of distending the external outlet of the mother. The nature of the case, the amount of remedial means used, and the stage of the labour, showing that the expulsive powers predominated over those of resistance, clearly evinced that the only safe course to pursue was to increase the expulsive powers of the uterus, by means of the ergot of rye. This medicine, *ʒiiss*, was prepared and administered in the usual way, and in fifteen minutes after the first half was taken, the pains increased in force and efficiency; the second half was administered half an hour after the first, by which means the pains continued until the child was born, which happened about an hour after the first of the ergot was given.

As soon as the body and lower extremities of the child were expelled, the pains in a great measure ceased, which occasioned considerable difficulty in the extraction of the child's head; but by regular and steady efforts, it was soon extricated, yet not till pulsation had ceased in the umbilical cord. The state of the child, and means used, will be noticed under the head of suspended animation.

If the expulsive efforts, in this case, had continued till the child's head had been expelled, the infant would not have been born apparently dead; for previous to the efforts used in extraction, the umbilical vessels were distinctly felt pulsating; consequently

there is little room to conjecture that the ergot had any share in rendering the child so deathlike. This appears to us one of the very best cases which can be adduced to manifest the efficiency and safety of the ergot of rye, when exhibited after the obstructing causes of delivery have been subdued by the other appropriate means.

No breech case has come under our care, or within the range of our knowledge, in which so much severity and difficulty accompanied the labour, and the child to be born alive, or capable of being resuscitated. The child was born a little within twelve hours after the commencement of labour.

Case 12.—Mrs M., who considered herself in labour of her first child, requested us to call on her early in the forenoon. When we arrived, she informed us that she had been labouring under considerable pains for several hours before she sent for us, but they were not yet any worse. She complained of considerable pain and a sense of weight over the sacrum, and in the region of the uterus. On examination, the os uteri was found dilated to about the size of a shilling, and the child lay so high that it was difficult to ascertain, with accuracy, the part which presented; and during a pain the presenting part rather receded from, than advanced towards the os uteri. From these circumstances it was pretty evident, that, if the woman was in labour, every symptom indicated severity and

obstinacy. We prescribed a purgative, and took our leave. As we heard nothing farther regarding our patient, our next call was at seven o'clock evening, being about five hours absent. We now learned that the medicine had operated copiously, and that she experienced great relief afterwards. On examination per vaginam, the only distinct difference we could perceive from what was present at our first examination, was that the uterus containing the head of the child was more advanced into the cavity of the pelvis; the os uteri was but little more dilated, and its edges were still thick and rigid. At half-past seven o'clock evening, 60 drops of laudanum were exhibited to the patient, and as the pains still continued extremely violent, other 60 drops were administered an hour afterwards. These two doses of laudanum having little effect in alleviating the great severity of the pains, or rendering them more effective, 12 ounces of blood were taken from the arm, when the patient became faintish. In less than an hour after the blood was extracted, the pains were more easily borne, and did not return so frequently. The blood, on cooling, exhibited only a very thin buffy coat. At eleven o'clock the os uteri was more dilated and its edges thinner, yet the labour made little progress; the patient, however, was now so much easier, especially in the intervals between the pains, that as soon as the pain ceased she fell asleep.

The patient continued in this state till after midnight, the pains having still little effect in advancing the child. From this continued state of torpor, as soon as the pain went off, we were in some doubts regarding the propriety of giving the third dose of laudanum, and if we had not had considerable experience in its application in the various forms of labour, we certainly would have withheld the third dose in this case. But having previously formed an opinion, after minute observation on the various forms of such labours, that in every instance in which the labour is conducted in the manner which we have advised, and the pains continue severe and inefficient, the third dose of laudanum may always be used, whatever otherwise may be the state in which the patient is in. On account of very copious vomiting, with which the patient was seized, about two hours after she had taken the second dose of laudanum, the third dose was delayed longer than it would otherwise have been. She had taken the third dose of laudanum only a few minutes till she had a strong inclination to stool, and when on the pan the bowels were freely moved, and at the same time the pains improved in strength and efficiency. In less than an hour after the use of the third dose of laudanum, she vomited a second time, but the pains continued to advance the child, and it was born at five in the morning, ten hours after labour had actually commenced.

The last portion of laudanum was, no doubt, in some

measure vomited, but neither before nor after the vomiting did the tendency to sleep increase.

We may here notice that the liquor amnii was not discharged till the external parts of the mother began to be distended by the child's head; for it was only about this time that the membranes began to be the least tense, or to form any projection over the child's head. As soon, then, as this state of the membranes occurred, they were ruptured during a pain, the only time in which they ever should be ruptured by the accoucheur, and the child was born soon afterwards.

Case 13.—Mrs D. sent for us at three o'clock morning, to attend her in childbed. When we arrived, she informed us that she had been in considerable pain since twelve o'clock at night. On examination per vaginam, the os uteri was well dilated, and its edges thin and relaxed; the head of the child had begun to enter at the brim of the pelvis, and every other symptom appearing favourable, we anticipated a speedy delivery. During a pain she complained a great deal of the lower part of the belly, which was also very uneasy when the child moved. From the time of our arrival till six o'clock morning, the pains continued regularly to come on, but produced almost no effect in advancing the child; and just when we were about to administer 60 drops of laudanum, they, all at once, almost entirely ceased. We still continued with the patient for the space of an hour, and as there was no return of pains we left her.

We called two or three times on our patient during the day, but there was no return of pain till five o'clock afternoon, and we saw her at six. On examination now, we found the position of the child little altered from what it was at three in the morning. The motions of the child were strong and frequent, and caused so much pain in the lower part of belly, particularly when the patient was in the recumbent posture, that she could not lie in bed. Sixty drops of laudanum were now administered, and soon afterwards 20 ounces of blood were taken from her arm. By the use of these means, the patient was so far relieved as to be able to lie in bed; but at the expiration of an hour the labour had made no progress whatever, and other 60 drops of laudanum were repeated. As no alteration had taken place in the labour an hour after this second dose of laudanum had been exhibited, the purgative clyster was immediately given, which in a few minutes was partially discharged. When the patient was on the pan, which should always be partially filled with warm water, we urged her to endure several pains in that position, and, while so placed, the clyster, with a fæculent stool, was discharged.

This method of sitting, during labour, over the steam of warm water, is disapproved of by some accoucheurs; but we have been in the habit of practising it for twenty years, and certainly, in many instances, with manifest advantage, and we never observed a disagreeable

symptom occur from its employment. This case also was benefited; for, about half an hour after the clyster was administered, the patient went to bed, and soon afterwards the waters were discharged. The child was born at nine o'clock evening, three hours after giving the first dose of laudanum, and eighteen hours after our first visit. In labours of this description, as we formerly noticed, Dr Hamilton calculates their duration, we think very properly, from the time the labour pains recommence.

If an imprudent accoucheur, in order to save his time, were to administer the ergot of rye in labours of this description, as soon as the pains began to decline, without any regard to the removal of the obstructing causes, even were the ergot to operate favourably and expel the child, it would be born dead.

Our principal object in relating this case, is to show that we have formed no fixed determination to have delivery effected within a given period; and that it is only when the circumstances of the case evince, to our satisfaction, that the employment of means will be advantageous, not only in expediting the labour but in proving more favourable both to mother and child, than if such means had been withheld.

Case 14.—Mrs T. K., who considered herself seized with labour pains about two P.M., requested us to attend her. She informed us that the liquor amnii had been discharged at noon without any pain. Mrs

K. has been in a bad state of health for a number of years, yet during this period she has born several children. During the two months previous to the commencement of the present pains, she has suffered considerably from general uneasiness and spurious pains, her legs being much swollen, and the belly unusually large and tense. The motions of the child, which were strong and frequent, increased the uneasiness so much when in bed, that even in her very unwieldy state, she was obliged occasionally to get out of bed and walk about the room. On examination, per vaginam, finding no dilatation of the os uteri whatever, we concluded that the woman was not yet in labour; and, after requesting to be sent for as soon as any change took place, we left her. On our call, between four and five afternoon, the pains had become more natural, and the os uteri dilated to the size of half-a-crown. From Mrs K.'s long illness, she had been in the habit of taking opium repeatedly; and we now learned that she had, a short time before we arrived, taken two grains of solid opium. We remained with the patient nearly an hour, to observe the nature and effects of the pains, and as they were neither severe nor frequent, we again took our leave. As we were not sent for, we did not return to our patient till half-past ten evening, when we were told that, for some time past, the pains had been more severe than at any former period; the os uteri was more

dilated, and the head of the child began to enter at the brim of the pelvis. By eleven o'clock, the pains had become very severe, but did not advance the child. This being the usual time that she was in the habit of taking a second opium pill, one of two grs. was administered, but it had no effect in alleviating her sufferings or improving the labour. She continued in this state until half-past twelve o'clock, when her sufferings became so intolerable, that she exclaimed it was impossible she could longer support such agony. The purgative clyster was now administered, which operated well; and, after its operation, 60 drops of laudanum were given to the patient. In about half an hour after these means were employed, the pains became less severe and more effective, and by two o'clock, A.M., the child's head had so far advanced as nearly to dilate the external parts of the mother. From this period till three o'clock no change took place, except the pains being more aggravated. The patient now lay on her bed like an inflexible mass of matter, being incapable of motion without assistance; her belly, particularly that portion of it situated over the fundus of the uterus, was so hard and tender that she could scarcely bear it to be touched.

Although, from continued severe pain, as well as from previous disease, our patient now was really weak, yet we were of opinion her child could not be born alive unless she were bled. Having made our

views known to the patient and her female friends, they were struck with horror at the idea of bleeding a woman already so weak, and who on all former occasions was injured by bleeding. By acting with promptitude and decision, however, we bound up the arm, and had the vein opened before the by-standers had well time to think, or acquaint the husband of what was doing. She bore the bleeding well; and, when 12 ounces were extracted, she was not weak, but, from the incessant solicitations of relatives, we were obliged to stop. The blood, on cooling, was covered with a dense buffy coat. As soon as the arm was bound up, half a dose of ergot of rye, being infused, was given to the patient; and we now sat down by the bedside of our patient under feelings of as intense interest, perhaps, as any accoucheur ever experienced at the couch of a parturient woman. Our anxiety did not arise from the state of our patient; for no doubt existed that in a short time the child could be extracted by means of the forceps; but, after careful observation on, and varied trials of, the ergot of rye, we had, previous to our attendance on this case, formed the opinion that, if the case was properly prepared to be acted on by the natural operations of the ergot, it would prove effective in expelling the child in every instance.

Now, in this case, although the usual means were in a great measure employed, still we were apprehen-

sive that the morbid condition of the expelling powers was still too great to enable the ergot to excite the uterus to efficient expulsive action; and thus, had its operations been unproductive, a sort of veil would have been thrown over the conclusions we had come to. This anxiety, raised in our minds regarding the operation of so valuable a remedy, was the more intense from the circumstance, that the case was among the last in the 423 on which our observations were founded.

Let us now see, then, what became of our case. For about half an hour after the first half dose of the ergot was administered, the pains became less severe and less frequent, but they produced no effect whatever in advancing the child; and, as on no former occasion was this medicine so long in producing its peculiar effects on the uterus, we began to despair of its effective operation. But, almost immediately after this period, the uterine actions increased in strength and efficiency; and, without waiting to see the effects of the first quantity, the second half was given soon after the pains began to improve, so that the labour went on progressively till the child was born. The child was born alive, but its lungs required to be repeatedly inflated artificially, before it could respire by its own efforts. This woman was a little more than twelve hours in actual labour.

If a similar case to this one were again to come

under our care, in which the patient was in the habit of taking opium at stated periods, we would at once prohibit the use of the patient's customary doses, and give the laudanum in the usual quantities; and, had this plan been adopted in the present case, we entertain no doubt that the labour would have terminated within the twelve hours.

Case 15.—Mrs J., aged 21 years, summoned us to attend her in labour, about eight in the morning. This was her first child, and during her pregnancy she had enjoyed good health. Her bowels were sufficiently open to-day, without medicine. On examination, the os uteri was much turned towards the sacrum, and had seemingly just begun to dilate, its edges being thick and rigid. The labour pains were neither frequent nor severe, and they continued in this state for two hours and a half, without advancing the child. At eleven o'clock, A.M., the pains became more severe, yet equally ineffective, when 60 drops of laudanum were exhibited. The laudanum had a good effect, for in less than half an hour, the os uteri was well dilated, and the labour went on, for about two hours, slowly but progressively. These favourable uterine efforts were soon changed to severe and ineffectual pains, which induced us to give the second dose of laudanum, and soon afterwards the purgative clyster was administered. Although the clyster operated copiously and repeatedly, yet no favourable change took place in the labour;

indeed, in proportion as the pains increased in violence, the less efficacious they became. As soon as the clyster ceased to operate, 20 ounces of blood were taken from her arm, when she became weak and pale. The blood, on cooling, was covered with a thin buffy coat. Twenty minutes after she had been bled, the third dose of laudanum, of 60 drops, was given, but the patient vomited fifteen minutes afterwards. As the extreme sensibility and spasm of the uterus were still of a distressing description, it became a question of grave consideration, whether an additional quantity of laudanum should be prescribed, to compensate for what must have been vomited, or trust to that which was retained. Although the latter method was adopted, we entertain no doubt whatever, that the former would, in all such cases, be the better practice ; for when full vomiting comes on in so short a time after swallowing any fluid, we may be very safe in repeating the half of the former quantity, and this method we would follow in a similar case to this one. We have never given more than three doses of laudanum, of 60 drops each, in any case of labour, and although we had given 30 additional drops in this case, there is no reason to think, that more than the usual quantity would be on the patient's stomach. Whatever might be the quantity vomited of this third dose of laudanum, its beneficial effects were soon evinced, for by four o'clock afternoon, the os uteri was fully dilated, and the head

of the child advanced to within a small distance of the external orifice of the mother. The expelling efforts, however, soon ceased, or at least were completely counterbalanced by the resisting powers. The practice to be pursued now was very evident, that of improving the expulsive efforts by the ergot of rye; and as soon as it was prepared, it was administered in the usual manner. Its influence on the actions of the uterus was manifested in about ten minutes; and half an hour afterwards, the head of the child began to dilate the external parts of the mother. At this period and stage of labour, the pains became so continuous and excruciating, that the woman, for about ten minutes, screamed without a moment's intermission, yet the child, during all the time, did not advance, so far as we could perceive, one hair's-breadth. Such singular suffering, after the use of this medicine, we had never before witnessed, and how to act under such circumstances we were in some measure puzzled; for we were afraid that it might be hazardous to increase the action of the uterus, by giving the second half of the ergot; yet, on the other hand, it was clear, that if the second portion advanced the child as much as the first had done, the infant would soon be expelled. The second view of the case was acted on, and at the same moment that the second dose was administered, we sent for the forceps, resolved to deliver the woman unless the ergot speedily proved effectual. The second

half of the ergot, however, was given only a few minutes till the expulsive action returned, accompanied still with extreme pain. The patient was now very desirous to change her position, and she was placed on her knees, in bed, with a woman seated before her, on whom she rested her head and shoulders. This half erect posture gave the expulsive efforts a small advantage, and in a few minutes after the woman was so placed, the head of the child slowly glided through the external parts. Delivery was effected about five o'clock afternoon, nine hours after the commencement of labour.

The very gentle manner in which the child passed through the external parts, showed most satisfactorily, that the principal obstructing cause arose from excess of sensibility; the extremely acute pain restraining the expelling action of the uterus. Now, it is self-evident, that had an additional quantity of laudanum been administered, at least equivalent to the quantity vomited, a great portion of the excruciating pain, latterly suffered, would have been saved. The child being born alive and well, too, was another proof that the delay did not arise from strong spasmodic contractions, which are the principal causes of the destruction of the child's life; but merely from defective uterine action.

These fifteen cases which we have fixed upon, as illustrative of the foregoing observations, embody

every variety of labour which occurred in the 423 cases; for although there were many other cases of a very similar description, treated in the same manner, and terminated in the same way, yet as no particular difference took place in any of them, we consider it would be both a loss of our own time, as well as that of our readers, to relate them.

We have formerly stated, that the various causes of delay in protracted natural labour, were few in number, and easily recognised; and we are now of opinion, that if the few cases we have detailed, be duly studied, any other variety of labour that may occur to the accoucheur, will not be difficult to understand and manage, as it will be closely allied to one or other of the varieties we have given.

This rather confident statement is not made as the result of the 423 cases alone; for numerous labours subsequently attended prove the truth of the above conclusions. One case, however, occurred long after we had completed the 423 cases, and as it was very different from any case we had ever met with, and as we are fully convinced that its nature was clearly understood by referring it to the above varieties, we shall notice it in the sequel.

There can remain no doubt, we think, that were accoucheurs, particularly those who have extensive opportunities, to give a clear and minute account of all those perplexing and tedious cases that come under

their care, in order that the public might have an opportunity of judging of the causes of perplexity and delay, as well as of the appropriate application of means, a vast improvement might yet be made in the management of childbed cases. At all events, we trust the period has now arrived, that all such cases, which heretofore were destined to an almost intolerable endurance, of from one to several days, shall in future be terminated almost uniformly within or about twelve hours from the commencement of labour; and the great mass of cases which continue from eight to eighteen hours, may be terminated in from four to six hours. We are of opinion, that in all cases of extreme suffering, unmitigated for three or four hours after the use of means, and which then extend to eighteen hours' duration, it should be made imperative, that a consultation should be held; and this command should apply whether the accoucheur be a mere tyro, or one who has reaped the rewards of the fame and fortune of half a century, and whether the patient be the highest or lowest child-bearing woman in the state.

These would be joyous days for the parturient woman and her innocent offspring. But as long as men of education, men of talent and extensive opportunities, gain immense wealth and patronage, just in proportion as they are successful in the device, and skilful in the application, of a set of instruments, calculated to separate, in the most unnatural manner, the

infant from its mother—when, in truth, the process ought to have been accomplished naturally, on physiological and therapeutic grounds—these happy days will not arrive.

Far be it from us to denounce improvements of any kind, especially if they have for their object the legitimate relief of suffering humanity; what we complain of is, that men of genius—men possessing extensive fields for observation in the practice of midwifery, devote more of their time to the consideration of instruments for the delivery of women in severe and tedious labours, than to deliberation on, and inquiry into, the nature of the causes which render instruments necessary. For we have seen, that when the nature of delay and severe suffering in childbed cases are fully understood, and suitable remedies applied, it is extremely rare that instruments will be required.

CHAPTER III.

SUSPENDED ANIMATION IN NEW-BORN INFANTS.

WE have long been of opinion, that the principal cause of children being still-born is, compression of the umbilical vessels by the powerful and unnatural contractions of the uterus, during protracted natural labours.

If we be correct in the opinion thus formed—and we think, from what has been advanced in the foregoing observations, few will feel inclined to doubt it—the immense loss of life, in new-born infants, may be easily accounted for. And this mournful termination will never be lessened, till more attention is paid to a correct method of speedy natural delivery, and till the feelings of accoucheurs rouse them more and more to a sense of their duty. Dr Maunsell relates a case which, at birth, evinced no marks of life, and without further attention, it was thrown into a corner of the apartment. Happening sometime afterwards to look at the child, he found that nature, unaided, had roused the heart of the little infant to pulsate to such a degree as to call the accoucheur to his duty; the child, however, perhaps from such treatment, lived only twenty-four hours. The doctor, in a praiseworthy

manner, cautions others to be more guarded in similar cases.

The circumstance too, of the liquor amnii being generally discharged, at a period of severe tedious labours, long before delivery takes place, renders the life of the child in greater danger than if the membranes had remained longer entire; for when the waters are evacuated, the spasmodic contractions of the uterus immediately compress the umbilical vessels against the body of the child; and when such compression is strong and long continued, or often repeated, the circulation will be completely arrested. It will be said, that in many protracted and severe cases, with the liquor amnii long discharged, the child will be born alive; and although this is strictly true, it only proves that the spasmodic contractions were not sufficiently powerful to interrupt, permanently, the circulation. From these views of the subject, then, we will see how, that by shortening the duration of labour, we save the child; and how, that by the use of appropriate means, the baneful effects of the spasmodic contractions of the uterus are greatly lessened, and the labour being by a great number of hours shortened, the child is sooner relieved from its perilous situation. From the relaxed and shrunk appearance which many, if not all, still-born children exhibit, one is apt to imagine that the child has continued to be emptied of its blood by the umbilical arteries, after it had ceased to receive

any by the umbilical vein. We know that arteries are less easily compressed than veins; and when we make the experiment on a strong pulsating cord, after delivery, there will be little room to reject the useful view we have taken. Admitting it then to be true, that the still-born child has been emptied of its blood, by the continued current, for some time, in the arteries, after it had been interrupted by pressure in the umbilical vein—we will at once see the force and propriety of allowing the umbilical vessels to remain untied or undivided, after the birth of the child, until the blood has had an opportunity of returning from the placenta through the umbilical vein to supply the child with its lost blood. This is a process which will certainly take place if the placenta be still adhering, and the child's lungs properly inflated.

On this subject, Dr Burns states, "In determining on our treatment of still-born children, our first object ought to be, to ascertain if the circulation be still going on in the cord."

"If the pulsation have stopped, no good can accrue from allowing the child to remain connected to the mother."

We certainly differ from this skilful accoucheur in his advice to separate the child from its connexion with the mother, when no pulsation is perceptible in the cord; for undoubtedly we have more than once experienced a return of circulation in the cord, after

it had totally ceased, by inflating the lungs of the child for a considerable time immediately after its birth.

The doctor further states, that “ If pulsation continue regular and steadily, the child is not in danger from want of respiration, for the fœtal mode of living is continuing. The cause of stillness, then, is most likely a kind of syncope, or torpor, which prevents the action of respiration from being established, or it may be from compressed brain. In both cases the skin is purple, from the blood not having been arterialized, and we have no mark of distinction till respiration begin.”

The purple colour of the skin, here noticed by Dr Burns, we think, corroborates our view of a cessation of the return of arterial blood by the umbilical vein to the child, before the arteries cease to carry the venous blood out of its body. For the colour of the skin shows distinctly, that venous blood predominates, which would not be the case if the circulation was regularly performed by the umbilical vessels. So that, we think, Dr Burns has stated the fact, but has not accounted for it.

Many children are born alive, that is, are able slightly to move a hand or a foot, and even to make an effort to cry, but without effecting it, that, so far as we can judge, would never breathe unless their lungs were artificially inflated; and this is sometimes

the case, even when the umbilical vessels are pulsating strongly. In cases of this description, the child seldom moves after the first four or five minutes; the umbilical vessels soon fade in their action, and it is clear, that under such circumstances, the child, without assistance, would soon die. This assistance should always be afforded at an early period after birth: we often hear of children being born alive, but lived only a few minutes. From pretty extensive observation and experience, in such cases, we consider ourselves warranted in stating, that when recourse is had to inflating the lungs of the child at an early period, and this kept up till the child is capable of respiring easily, by its own efforts, almost in every case the child will recover.

This is a subject of very great interest, and in our mind has been passed over too lightly by writers on midwifery. He must be possessed of an obdurate heart indeed, who does not sympathize with a mother who has suffered agonizing pains for hours and days, with a fortitude almost more than human, under the cheering hope that at the end of her struggle all will be forgotten, when a living child is placed at her bosom. But, alas! when the labour is finished, all the consolation her accoucheur can afford her is, that her bodily affliction is over, but her hope—of a living child—is not!

Without taking into consideration the propriety or

impropriety of the various methods of treatment advised and pursued by accoucheurs in still-born children, we shall at once proceed to notify the method which we generally adopt in such cases.

We have already hinted at the propriety of allowing the umbilical cord to remain some time untied or undivided after the birth of a still-born child; and for the reasons then assigned, this course we always pursue, unless certain circumstances, as flooding, or an immediate separation or expulsion of the placenta render it nugatory.

When a child is still-born, then, or only capable of manifesting the slightest symptoms of life, we allow it to remain close to the mother, and cover it well with the bed-clothes, exposing only its face and mouth. Having so placed it, and being convinced of the propriety of inflating its lungs, we lay hold of its nostrils with the fingers of the left hand, and having fixed the position of its mouth favourable for ourselves, we place our mouth over that of the child's, and expel the air from our own lungs cautiously, but sufficiently forcibly, so as to inflate the lungs of the infant. As soon as we consider the chest sufficiently distended, we remove our mouth from the child's, and apply our right hand over its chest, and by gentle pressure facilitate the expulsion of the air from its lungs. Immediately after the air has been thus expelled from the child's lungs, they are again to be inflated as before, and artificial

respiration is to be kept up in this manner, so as to resemble common breathing, until the child is enabled to respire by its own efforts. If the pulsation in the cord cease, the placenta be expelled or detached, or flooding come on previous to respiration being established, the cord should be tied and divided. The child should now be well rolled up in flannel, and placed near a good fire, and artificial respiration recommenced. It will be advisable too, to place about the child's body bottles filled with warm water, so that a natural heat may be kept up. In this manner, we think, and we speak experimentally, the inflation of the lungs should be conducted for at least an hour, provided there is good reason to think that the child was alive a short time before birth. On no consideration should we desist for a moment from our exertions; and at the expiration of half an hour, should the slightest symptom of returning animation present itself, and though this slight symptom be but little improved at the termination of the hour, it is incumbent on us to persevere as long as there is any hope of recovering a helpless human being, to whom we have undertaken to do justice.

We need not despair of resuscitating a still-born child, even although the umbilical vessels have ceased to pulsate when the child is born; for in several instances we have succeeded in restoring the circulation by inflating the child's lungs, when at its birth scarcely

a quiver could be felt in any part of the umbilical vessels. In such cases the cord should not be divided for at least half an hour after the birth of the child; for it is in these vessels that we perceive the first symptoms of returning life. Notwithstanding this total cessation of circulation in the whole infantile system, it appears, that after the lungs have been a few times distended with air, the vital principle of the umbilical vein seems to gain increased power, which enables it to propel its arterialized blood through the system.

In the management of still-born children, for a considerable time past, we neither use frictions with spirits, nor put the infant into warm water, as is usually advised and practised; but as we have above stated, the child is well covered, and inflation regularly performed. This method we consider far preferable to any other; for by it a more regular and uniform warmth is kept up on the child's body, and the continued inflation of the lungs is not interrupted; besides, it appears to us doubtful if any other means be advantageous. The inflating of the lungs by means of a tracheal tube, as advised by some, is not so approvable a plan, in our estimation, as the one we practise, and which, we believe, is generally adopted; for by the last method almost any one can inflate the lungs, whereas by the former, young practitioners, especially, might lose some minutes before they were enabled

suitably to fix the pipe, and this delay might be the cause of the loss of the child's life.

The pressing of the trachea gently backwards, as advised by Dr Burns, in inflating the lungs, should certainly be attended to, in order to prevent the air from passing down the œsophagus. It deserves to be particularly noticed too, that when the child begins to show symptoms of returning animation, its tongue will sometimes be so forcibly retracted, as to fill up the passage of the throat so completely, as to render the inflation of the lungs very difficult; indeed, its accomplishment, in some cases, is quite impossible, until the tongue is drawn forward or pressed down by the finger, so as to allow the air to pass. The same thing occasionally takes place even after the child has respired naturally. We have felt considerable embarrassment in the management of such cases, for after respiration had been fully restored, all at once the breathing ceased; and on endeavouring to inflate the lungs, not a particle of air passed down the trachea. On examining the throat, by means of the finger, the tongue was found drawn backwards, and rigidly fixed, so as completely to shut the rima glottidis. To remedy this evil, we introduced our forefinger back to the root of the child's tongue, and pressed it gently forwards and downwards, when the opening became so far relieved as to allow the air again to pass, and the child soon began to respire.

A writer, whose name we do not at present remember, states, that in the case of a new-born infant under his care, whose breathing suddenly ceased, he introduced his finger into its throat to clear away a quantity of mucus, and on pressing its tongue downwards and forwards, the air rushed into its lungs, and the child at once began to respire. Although the speedy recovery of this case, deserves to be noticed, yet it must not be depended upon as an instance of what usually takes place in cases of this description; for on several occasions, in which we found it necessary to introduce our finger for the same purpose, respiration did not succeed in any instance until the lungs were repeatedly inflated by art.

The first case of this description which came under our care, was a still-born child after turning. Resuscitation had to be continued a considerable time before the child was enabled to respire naturally; and as soon as this appeared to be established, the woman being under the care of a midwife, we left the house gratified with our success. Next morning, on our call, we were informed, that not long after we left the house the child ceased to breathe, and almost instantly died.

As we had never met with a similar case, we did not apprehend danger after respiration had been so fully established; yet we entertain no doubt, from what we have repeatedly met with since, that had we

been present, to have again and again inflated the lungs, the child might have been saved.

The second case was attended by ourselves from the commencement of labour. It was a breech presentation; and, although the child was still-born, its breathing was soon restored, and apparently established by artificially inflating its lungs. We, in this case, on the score of safety, instructed the father of the child to inflate the child's lungs, which he performed with great facility in our presence; and, after remaining about an hour after the delivery of the child, and at least half an hour after it began to breath without difficulty, we left the house. When we called next day, we were greatly disappointed to learn, that this child also, soon after we took our leave, fell into a state of quiescence, from which it did not recover. The father informed us, that in a short time after we left them, the child's breathing instantly stopped; and, although he endeavoured to inflate the lungs in the same manner in which he had successfully done in our presence, not a particle of air seemed to pass the child's throat, and it very soon died. From this description of the father's, it was very clear that the tongue of the child had been drawn backwards, in the manner formerly noticed, so as to fill up the opening to the air passages. The fatal termination of these two cases, under what we considered remediable circumstances, taught us never again to leave a child requiring artificial inflation of the

lungs, without waiting a longer period after respiration was performed naturally; and since we adopted this course, we have not lost a child.

In case 5th (Mrs H.) of the Illustrative Cases, the child was still-born; but, as slight pulsation was perceptible in the umbilical cord, we entertained no doubt but that the infant would be recovered. The whole surface of the body, but particularly the face and lips, were of a dark livid aspect; and flaccidity, with a degree of shrinking, pervaded the whole body. Inflation of the lungs had not been long continued till the lips, and then the face and trunk, assumed a florid hue, and soon afterwards the heart began to pulsate strongly. From this time, we expected every moment the child to make efforts to respire; but although the lungs were regularly inflated by ourselves for about an hour, and afterwards alternately by ourselves and the father of the child, from five in the morning till two o'clock afternoon, we never observed the child to make the least effort to breathe, neither was any external motion observed in any part of the body, yet all the time the heart continued to beat, and for the most part the lips and face were of a florid healthy-like colour. About two o'clock afternoon, however, the colour of the face became of a dark tinge, and the heart ceased to beat. We regret that, in this case, we did not encourage the umbilical arteries to bleed.

This is the only case of death, formerly alluded to, in the 423 cases.

In case 7th, of the Illustrative Cases, the child was born in so weak a state, that though it made efforts to cry, yet it could not effect it; neither did it appear that the smallest quantity of air entered the trachea. The face of this child was also of a dark livid tinge. As the mother, after delivery, was in a tolerably easy state, we paid immediate attention to the child, being fully convinced, that a few inflations of its lungs would restore natural respiration. In this expectation we were disappointed; for, after proceeding about ten minutes in the usual manner, the face of the child retained the same colour as at first; and though it made efforts to inspire, they were quite ineffectual. About this time, the pulsations in the cord had nearly ceased, when the child was separated from its connexions with the mother, rolled up in warm flannel, and placed near a strong fire. Resuscitation was again resorted to, and regularly continued for half an hour, when the child was only so far recovered as to enable us to leave it to attend to the mother. Respiration was now performed by the infant with considerable facility, for about the space of half an hour; it, however, still continued to retain its dark colour.

In a short time after this period, the child was placed in a basin of warm water, with a view to have

it washed and dressed; but, almost instantly after it was immersed in the water, the breathing ceased, when, at the same instant, the whole surface of its body assumed an unusually dark colour. Though nothing short of instant death was contemplated, yet the child was at once removed from the water, and again wrapped up in the warm flannel, and artificial respiration recommenced, and continued, without interruption, for half an hour, when the child again could respire by its own efforts, and the colour of the skin was restored to its former state. We now entertained great hopes, that by careful attention the child would continue to improve; but, in a very few minutes afterwards, it fell into the same state as before, and was again restored by the same means. It occurred to us now, that the most probable method to pursue, in order to prevent relapses so alarming and dangerous, would be to continue to inflate the lungs by art for a considerable time even after the child could respire naturally. This plan was adopted, and continued pretty regularly for an hour, the latter part of which time the child could respire with great facility, when, for a short time, it was allowed to do so. From this period the child continued to breathe by its own efforts; and having been assisted, during this long process, by one of the inmates to inflate the lungs of the child, we requested him to take charge of it, and, if necessity required, to inflate the lungs as he had already done; intimating to him, at the same time,

that if the air did not pass into the lungs, to press down the tongue with his finger. We now left the house, much fatigued but greatly delighted.

A task of this kind, so long continued, is not an easy one; but a conscientious accoucheur will know that it is his duty to perform it, and that he lies under a solemn obligation to do so.

Next morning, when we called, we were much pleased to learn that, during the night, the child only required a slight assistance twice, and this morning it is doing well;—the skin is greatly improved in colour.

In case 11, of Illustrative Cases, the child was still-born, and pulsation in the umbilical vessels had ceased. Without separating the child from its connexions with the mother, we instantly commenced resuscitation, and at the termination of fifteen or twenty minutes afterwards, the child gave its first gasp; and, an hour after we began to inflate its lungs, breathing was uninterruptedly performed by its own efforts. The lungs of the child had been inflated but a few times, till the umbilical vessels began to pulsate and the heart to palpitate. Though this child continued to breathe freely and easily for about an hour, yet from the circumstance of the former child becoming instantly worse after being immersed in the water, we at that time resolved never to disturb still-born children, after recovery, for several hours. It was consequently wrapped in flannel, and the nurse was enjoined not, on any

account, to disturb or wash it for six or eight hours afterwards. A little sugared water, however, was offered to the child, which it took and swallowed with great facility; but, in not more than a minute afterwards, its colour changed from a perfectly healthy-like appearance, to that of a purple tinge, and at the same time respiration was nearly suspended. The lungs were instantly inflated, and with the most happy effect; for in about half an hour the child could again breathe without assistance. With a view to prevent a relapse, the inflation of the lungs was artificially continued at short intervals for a considerable time, yet the breathing more than once almost ceased, and then the colour of the skin again became as dark as at the first attack. We remained with this child nearly six hours after its birth; and from what we have repeatedly observed in similar cases, had we not done so, it certainly would have been lost. As on former occasions, we instructed the father of the child how to manage in our absence should necessity require it. At our next call, we were informed that the child had one very severe attack after we left the house, its colour becoming as dark as on any former occasion; but the tongue seemed to be so much retracted over the air passages, that the father was unable to propel the air into the lungs, and, as formerly noticed, the child was gently moved, when it again began to respire. One or two slight attacks

afterwards were removed in a similar manner, and in the morning it was doing well.

Mrs M., after a very severe labour which continued ten hours, and during which all the usual means were employed for relief, bore a child about an hour after the ergot of rye had been administered. The child showed slight symptoms of life, but made no effort to breathe. It was a very large child, and exhibited a very dark and unhealthy aspect. At least half an hour was employed in inflating its lungs before respiration was established, and even after this was effected, the child remained weak, and its colour unimproved. Nothing further, in this case, was done for the space of six hours after birth, except rolling the child in flannel and keeping it agreeably warm. At the expiration of this period it was much stronger, and the colour of the skin improved. It was now washed and dressed without experiencing any apparent inconvenience.

Mrs D., after a short but very severe labour, during which she was bled and had only two doses of laudanum, bore a child with very faint symptoms of life, and even these, in about ten minutes after birth, seemed to have totally vanished; the only mark of remaining existence being slight pulsation in the umbilical vessels. Inflation of the lungs was instantly commenced, and regularly continued for about half an

hour, before the child could respire by its own efforts; after this time there was no interruption to this child's recovery: it was not meddled with in any other shape for six hours after birth.

This interesting case shows most clearly the nature and danger of those actions of the uterus, occasioned by an exhibition of the ergot of rye at an improper period; for, in this case, had the constrictive actions of the viscus been at all increased by the use of the ergot, the child must have been born dead.

Some, perhaps, may be inclined to assert, that if the labours thus shortened, in which the children were born in so weakly a state, had been allowed to continue without interference, the children would not have been in so great danger. In answer to such an assertion, should any one be hardy enough to advance it, we have to state, that the means used for the purpose of alleviating extreme suffering and shortening the duration of labour, had no effect, in the great majority of cases, of rendering the children even weakly at birth, much less in being accessory to the expulsion of the child in a lifeless state. No; we unhesitatingly assert, that it is by the use of such means, and by the shortening of such labours, that children, born under the circumstances we have noticed, can be restored to health by any means. In proof of these statements we have farther to observe, that, after all the research we have been able to make, we cannot find that there is on

record any thing like so small a number of irrecoverable still-born children, in the same number of child-bed cases as we have given.

From all that we have observed in the management of still-born children, it appears to us that the failure in their recovery depends more on the short period in which means are employed, than on the total neglect of them; for we believe that all accoucheurs, in some way or other, inflate the lungs of the still-born child, but unless it be uninterruptedly persevered in, not only till the child is enabled to respire by its own efforts, but as often as these efforts fail, the inflation of the lungs should be recommenced by the accoucheur, and continued, as necessity may require, for at least three hours after the birth of the child. After this period, it has appeared to us that respiration is more easily excited.

Although, in our observations on this subject, little new may have been elicited; yet, as its great importance cannot be denied, the attention of the accoucheur cannot be too often directed to it. When a practitioner is anxious to improve his art, and as anxious to communicate what appears to him to have even a semblance of improvement, it will generally be found that, in such a document, either some observations or some ideas will be found, which are calculated, in some way or other, to repay the time and trouble of a perusal.

CHAPTER IV.

UTERINE HÆMORRHAGE AFTER THE BIRTH OF
THE CHILD.

THIS is one of the most alarming, and, without the use of appropriate means, one of the most dangerous situations in which a woman in childbed can be placed; for it is no unusual occurrence, a few minutes after the birth of the child, for a sudden and profuse discharge of blood to rush from the vagina, as if the whole system had secretly conspired to deprive the patient of existence by one inundating gush. This awful state may occur after any form of labour, but it is most frequently to be met with after protracted labours; and although this fearful state of things takes place but comparatively seldom, yet the accoucheur, at every birth, should be duly prepared to meet so dreadful an emergency with promptitude and energy.

What may be the primary cause which incapacitates the uterus, after childbirth, adequately to perform those functions for which it is destined, we, in the present state of our knowledge, are unable to decide; and all that has been said on the subject, so far as we can conceive, is merely conjecture. The great

business of the accoucheur, then, in such cases, is to form an accurate estimate of the nature of the case, as it presents itself to his notice. And we think, that in forming this estimate of the nature of such cases, there can be but one opinion, namely, that the immediate cause of the mischief lies in a defective condition of the uterine system itself; for, after much experience and careful observation, we have met with violent cases of uterine hæmorrhage in every state of constitution, from the most robust to the very weakly; and one patient would be entirely exempt from hæmorrhage, after delivery, whose symptoms appeared exactly similar to another who was generally attacked with this affection. This defective state of the uterus consists in a want of that energy of action which enables it to contract upon the bleeding vessels, so as to compress their open mouths.

Having come to this presumed correct conclusion regarding the defective condition of the uterine system, our next point for inquiry naturally is, What is the nature of this condition of the uterus, which renders its functions defective? A correct reply to this question will set the subject at rest, so far at least as regards the proper remedies to be used. The nature, then, of this unnatural condition of the uterus seems clearly to be, a distorted state of the constituent parts of the viscus itself, rendering its operations irregular and inefficacious; and must be viewed in a similar

manner to that in which we considered it, under the head of *Protracted Labours*; for the sensibility and contractions of the organ are decidedly in error.

When, in uterine hæmorrhage, we pass the hand into the uterus, in a great many instances considerable interruption, in some part of its course, will be felt to its passage; and, in passing the hand through the point of interruption, considerable increase of pain will be excited; but, when it gets beyond the constricted point, the organ will be felt relaxed, motionless, and comparatively insensible—thus showing distinctly, that the sensibility, as well as the power of action of the viscus, is most irregularly distributed.

But it repeatedly occurs that, on the introduction of the hand into the uterus, no interruption whatever is met with, the hand passing to the very fundus with almost as much facility as if it were passing through a moistened bladder. In such a case, both sensibility and uterine action seem to be almost totally annihilated; and thus the flow of blood, from the open mouths of the blood-vessels, being unrestrained, the patient, without assistance, would soon sink into an irretrievable state. In these extreme cases of danger, only one unchangeable view must be taken of the case, namely, that of extreme exhaustion, extreme inequality in the distribution of the nervous influence to the uterus, and consequently a total suspension of uterine action; and from all the information we can collect,

from every accessible source, the mode of treatment, in order to the immediate and ultimate preservation of the life and health of the patient, must be as unchangeable as the view we take of the case. We beg to say, then, that by taking a certain view of the case, and by adopting a certain mode of treatment, we have never, in our practice, either immediately or ultimately, lost a patient from uterine hæmorrhage after the birth of the child; and we have been present with other practitioners as well as midwives, in such cases, but up to this period, 1839, we have never been connected with a case that terminated fatally.

We have used the terms immediately and ultimately, for many women die from the effects of the hæmorrhage, in a few days or weeks, who survive the first shock; and others live for many years, never forgetting, however, to relate the cause of their long continued, or permanent ill health, to arise from a severe attack of flooding after the birth of a child.

It may be urged, that, in some of these extreme cases, the sudden and profuse loss of blood renders the woman irrecoverable before the most suitable means, even promptly applied, have time to remedy the mischief done. It is true the woman dies from the sudden and profuse loss of blood; but, strictly speaking, not from the want of blood, for the great and instantaneous discharge stills every motion in the system, and so far lessens or entirely stops the farther

loss of the vital fluid, before the system be so much drained of it, as to render recovery impossible from this source. A question now presents itself of paramount importance: What is to be done in order that the system may be enabled to act favourably on its remaining portion of blood? In reply to this query, we must advert to what we have already stated regarding the nature of the case;—those means suited to remedy the extreme exhaustion, the unequal distribution of the nervous energy, as well as that of the power of action, are to be duly administered to the patient. This distorted state of the system generally, and of the uterus in particular, is not by any means the result of the hæmorrhage only; the patient feels often, if not always, a sense of fear that something is wrong, a sense of sinking when the pulse at the moment does not indicate such a state, and she at the same time intimates that the discharge is great even when it is not much more than usual. Thus we see that a peculiar state of the system, as well as of the uterus, is the cause of the subsequent and often fearful gush of blood. And to secure the recovery of the patient, the object in view is not only to arrest the progress of the discharge, but, at the same instant, to put the system into such a state as will enable it to circulate the remaining portion of its blood, in a regular and equable manner, so that the vital functions may be immediately restored. Yes, we have said, to secure the recovery

of the patient; for from what we have so often seen, we can scarcely conceive a case of uterine hæmorrhage after the birth of the child, that, by appropriate treatment, may not only be saved from sinking under the immediate attack, but be saved from that reaction, fever, and distress, which so frequently accompany the recoveries of those whose lives are saved.

We have no sufficient grounds for supposing that in cases of the above description, the uterus is in so diseased a state as to prevent its recovery, sufficiently early, in order to save the life of the patient. For when the organ, previous to the expulsion of the child, was capable of retaining, nourishing, and ultimately expelling the child, it can be looked upon in no other light than that in which we view the stomach attacked with cramp, or the bowels with colic, from some temporary derangement, which, by the use of appropriate means, are soon remedied.

In the treatment of uterine hæmorrhage after the birth of the child, in order that the means used may prove successful, they must, as in every other instance in which we follow the laws of nature, correspond with the end intended.

We know that less power is required to raise a light body than to raise a heavy one; so is it with a patient whose slight degree of weakness renders it necessary to give him small quantities of cordials; but

if another patient be exhausted almost to annihilation, the quantity of cordials calculated to restore him must bear some proportion to his exhausted condition. By carrying these simple intuitive notions along with us, we will experience no difficulty in fully understanding a method of treatment adapted to secure a speedy recovery, in all cases of uterine hæmorrhage after the birth of the child.

In the management of the milder forms of uterine hæmorrhage, all that is necessary to be done in many cases, either before or after the expulsion of the placenta, is to give the woman 80 or 100 drops of laudanum, and every expedient resorted to, to give coolness and fresh air to the patient. The abdomen, particularly over the region of the uterus, should be well supported by both hands of the accoucheur or an assistant. In those cases in which the placenta is retained, and the hæmorrhage continues after the use of the above-named means, the accoucheur should immediately introduce his hand into the uterus, for the purpose of removing the placenta. The introduction of the hand, in many cases of this description, induces the uterus to contract, when both hand and placenta are expelled; but should this desirable event not take place, the accoucheur, as soon as his hand has reached the placenta, should grasp it gently, and should this operation not bring on uterine action, its separation from the uterus is next to be effected by

insinuating his fingers cautiously between the two bodies. As soon as the separation has been effected, the hand of the accoucheur should be placed behind the placenta, and any coagula that may be in the uterus, and when in the act of bringing off these, the uterus generally contracts and expels the whole; afterwards the hæmorrhage ceases. The patient, not being particularly weakened by this operation, feels quite well as soon as the contents of the uterus are evacuated. The accoucheur, however, in cases of flooding, even of a mild kind, should not leave his patient for an hour after it has ceased.

In other cases of this description, in which rather more complexity and difficulty arise, the patient, before much increase of discharge has ensued, complains of a disagreeable load at stomach, with a frequent desire and effort to belch, but without the power of discharging any thing from the stomach. The pulse becomes weak, the skin rapidly becomes cooler, and the patient complains of weakness and inclines to toss in bed. In such cases, without waiting for any increase of discharge, the means already noticed should be immediately administered, and instantly followed by giving the patient one or two wine-glassfuls of ardent spirits, diluted or otherwise as she may incline, and the urgency of the symptoms may require. In all other respects the case is to be managed as already noticed.

The beneficial effects of ardent spirits in floodings, and threatened floodings, such as we have just adverted to, are very obvious, for the stimulus has been but a very short time swallowed till the patient expresses herself to be relieved in a very remarkable degree, and instantly ceases to toss in bed.

All cases of moderate floodings, after the birth of the child, that have come under our care have been easily suppressed, and the patient speedily recovered by following this plan of treatment. The introduction of the hand into the uterus in such cases, for the purpose of extracting the placenta or removing coagula, is very seldom requisite.

We have occasionally, however, more appalling cases to contend with, the hæmorrhage being more instantaneous and profuse, producing effects in a few moments which threaten the very existence of the patient. The accoucheur can never be certain when his labour may terminate in such a manner, therefore he should be well prepared to meet such symptoms when they do occur, both by making himself well acquainted with the different degrees of hæmorrhage, and the necessary means to be used in each.

We shall suppose the accoucheur, after the birth of the child, seated by the bedside of his patient, waiting the return of uterine pains to expel the placenta, when the first thing that attracts his attention is a small stream of blood trickling over the bedside, and the

woman, with anxious expression, at the same time informing him that there is a large discharge. Almost in an instant afterwards, and before he has had time to examine the state of his patient, and consider what should be done, a frightful gush of blood is discharged from the vagina, which, in a minute or two, renders the woman perfectly death-like. The skin, which a few minutes before was hot and covered with perspiration, is now cold and clammy; the face, which was flushed and prominent, is now pale and shrunk; the pulse, which was rapid and bounding, has entirely ceased to beat; all power of motion seems to be nearly lost, with the exception of deglutition, which remains comparatively unimpaired; indeed the whole external aspect indicates instant dissolution. This remarkable state of the organs of deglutition should never be forgotten by the accoucheur, and we cannot too deeply impress it upon his mind; for, so far as we know, it is either not noticed at all, or but imperfectly, by any writer on the subject. The great importance of this power remaining so little impaired, and of being fully known to all in attendance on the patient, must be evident to every one; for in a case of exhaustion and general irregularity so extreme, the patient is enabled to receive into her stomach whatever may be considered capable of contributing to her preservation. The general exhaustion which pervades the system incapacitates every vital organ from exercising its due share

towards the recovery of the patient; yet it is incontrovertible that all of them are in a state capable, when properly treated, of being acted on so as to enable them to exert that general influence which is especially necessary for the ultimate restoration of the patient.

We have formerly noticed the state of the uterus in cases of this description, but it is equally necessary to direct the attention to the state of the system generally. We have seen that every organ is consigned to a state of inaction, and rendered incapable, without the assistance of art, of resuming its vital functions; the sensibility, the vascular actions, the muscular motions, are almost entirely suspended; and this being the case in the system generally, it would be worse than madness to attempt to correct the defects in the uterine system, without, at the same moment, correcting those of the system generally. Inattention to these leading truths, we have no hesitation in alleging, is the cause of long protracted recoveries, and the frequent loss of life.

In the management of cases, then, of this extreme description, it will be clear to every one, that the accoucheur would require to be well acquainted with the nature of his case, and impressed with the truth of the unchangeable view necessary to be taken of it, and in every instance this should never be forgotten; for whether the woman, previous to the expulsion of the child, had been labouring under acute febrile and inflammatory symptoms, or under symptoms of depres-

sion, with emaciation, the same view of the case, as one of extreme exhaustion, with its peculiar accompanying circumstances, must be taken; and the same mode of treatment, in every instance, must be rigidly followed.

Nothing short of these views, followed up by a suitable treatment, can, in numerous instances, save the life and comfort of the patient.

SECTION I.—*Treatment of Uterine Hæmorrhage.*

The first step, in the treatment of such cases, which the accoucheur should take, is to administer with his own hand, so as to be certain, not less than ʒiiss of laudanum to the patient. The laudanum may be given in a little cold water. In cases of this description we never give less than this quantity, and we have repeatedly given ʒij as the greatest quantity, and without any disagreeable symptom being produced, farther than, occasionally after the flooding has ceased, the patient has been very sick and vomited; which, however, is rather a favourable result. As soon as the laudanum has been swallowed, a wine-glassful, of two ounces, of undiluted ardent spirits, whisky, rum, or brandy, should be given to the patient, and the same quantity should be repeated in as rapid succession as the woman can swallow it, until four wine-glassfuls are exhibited. In a few cases we have given the fifth wine-glassful of spirits, but we have never

exceeded this quantity, nor do we believe it to be necessary. At the very same instant that these internal means are administering, the abdomen of the patient is well supported by both hands of the accoucheur, or an assistant, and a large cloth, wet with cold water or vinegar, is placed over the lower part of the belly and genital organs; the thighs and lower part of back being likewise frequently wetted with the same liquid. The hands also should be plunged in a basin of cold water, and the face repeatedly sprinkled with the same. The woman should be denuded of bedclothes, with the exception of a single sheet, and the doors and windows thrown open for the free admission of cold air. So far as we have observed, no injury can arise from the admission of the greatest quantity of cold air that can be obtained, at least at the first attack of the discharge.

In cases of great urgency, every process we have just enumerated should be in operation in the space of two or three minutes after the commencement of profuse discharge.

As soon as the laudanum and third glassful of spirits have been swallowed, the accoucheur should now introduce his hand into the uterus for the purpose, when it is retained, of extracting the placenta; and by the time he has arrived at it with his hand, it will be time to administer the fourth glass of spirits. To introduce the hand into the uterus, in instances of so great depression, insensibility, and uterine inaction, sooner

than we have now advised, with a view to excite contractions of the uterus, is a practice not only not beneficial, but unquestionably pernicious. For the additional shock given to the already exhausted parts, by the introduction of the hand, adds to their debility, and consequently protracts a return of those functions on which the contractility of the organ depends. Therefore, let the introduction of the hand be deferred until the sensibility and energy of the system be roused and equalized by the use of the means advised, and then in a very short time after the hand has been introduced, the uterus will be enabled to exert its powers for the purpose of expelling its contents. On the introduction of the hand, then, as we have directed, considerable resistance to its passage will be met with at, or a little above, the cervix uteri, and at this point the patient will complain of increased pain when the hand is passing through it; but beyond this contracted portion, nearer the fundus, the uterus will be found relaxed, and less sensible to the presence of the hand. This state of the parts shows most satisfactorily the truth of what we formerly stated regarding the unequal distribution of the sensibility and power of action. As soon as the hand reaches the fundus of the uterus, contractions frequently commence, by which the placenta will be separated and expelled; but, in whatever manner the uterus may act, after the introduction of the hand, the principal object for which it was intro-

duced, the extraction of the placenta, must be cautiously but certainly effected before the hand be withdrawn, or without waiting for a return of uterine action. The previous treatment, before the introduction of the hand, secures contraction; and generally before the placenta has been separated by the hand, the expulsive efforts of the uterus have commenced, and soon finish the operation.

In other cases, in which the degree of depression is a shade greater, the whole extent of the uterus offers no resistance to the introduction of the hand, but allows it to move about in every direction, as if contained in a lifeless pouch. Even in such cases, the previous treatment having been fully adopted, as soon as the hand reaches the fundus uteri, the placenta is to be immediately grasped by the hand, and gently and cautiously separated from its connexions with the uterus; when the expanded hand is to be placed behind it and any coagula that may be present, and the whole slowly but regularly forced from the uterine cavity. In every case that we have attended, although no contractions came on during the act of separating the placenta, yet before the loose parts and hand were removed from the cavity of the uterus, contractions of the viscus came on which assisted considerably in their evacuation. In whatever manner the placenta and coagula were removed in these cases, the uterus afterwards almost uniformly contracted permanently;

for in only one case, or at most in two cases, did we ever find it necessary to reintroduce the hand into the uterus for the removal of coagula, or for any other purpose on account of what is termed internal hæmorrhage. This form of flooding is, however, attended with considerable danger unless understood and relieved: its symptoms being similar to other hæmorrhages, with the addition of swelling of the belly and absence of external discharge, a mistake can scarcely arise. As all the means we have formerly adverted to, had been exhibited previous to the coming on of the internal hæmorrhage, the only curative step we found necessary to be taken, was to introduce the hand to the very fundus of the uterus, and after expanding it to force the coagula towards the os uteri, the uterus contracted and finished the operation.

It is clear, that in cases of this kind, the means previously employed had not had sufficient time to produce their full effect till the hæmorrhage recommenced; for, as soon as the uterus was emptied a second time, it permanently contracted, without the assistance of farther internal means.

We need scarcely notice, that when the flooding succeeds the expulsion of the placenta, the same kind of means, administered in the same manner exactly, are to be used as when the flooding takes place previous to the expulsion—with this difference, that the hand, most probably, will not require to be introduced

into the uterus at all ; for in no instance have we ever found it necessary, or considered it prudent to do so, except to extract the placenta, or remove coagulated blood.

When cases of flooding are treated as we have directed, the discharge is generally soon suppressed, and the patient so far recovered that she can be laid dry, and have a firm bandage applied to her bowels, from which she always feels great benefit.

So completely does the above mode of treatment put a stop to every disagreeable symptom, that we seldom find it necessary afterwards to repeat either laudanum or spirits. It is true that, on the succeeding days, a little wine and beef tea are allowed to the patient, who no doubt remains weakly for a few days.

In, we think, two instances only, did inflammatory symptoms succeed to this mode of treatment. They were both of the nature of puerpural peritonitis, and occurred when the complaint was prevailing epidemically : they both terminated favourably.

Thus we have detailed the various steps of the treatment, necessary to be pursued in the management of uterine hæmorrhage after the birth of the child, and also the manner in which the remedial means should be employed ; and, when the plan so laid down is accurately followed, we have yet to learn that any case of this form of hæmorrhage is either irrecoverable, or tedious and imperfect in recovery.

We shall now take a short survey of the means used and their mode of operation ; and the first in the list is opium or laudanum.

As opium in the solid state cannot be so rapid in its operations as in the fluid form, we always administer laudanum in dangerous cases of flooding, in preference to solid opium. And as we are perfectly convinced of the advantages of the liquid over the solid form, we never attend a woman in childbed without having a due supply of laudanum at hand. We prefer giving this medicine in the first instance from its two rapid and important operations ; the first of equalizing the sensibility and nervous influence, the second of acting as a general stimulant.

On the first of these operations, certainly, present relief, and ultimate speedy and complete recovery in a great measure depend ; for until there is a considerable approach to a uniformity in the sensibility generally, vascular action and muscular motion will be so defective, as to render recovery either protracted or impossible. The stimulating effect of this medicine, in conjunction with that produced by the full doses of spirits, is of the utmost importance in rousing the dormant state of the system, as well as the uterus, into a condition capable of performing those functions on which life depends. It is, then, the giving of these two remedies, in those quantities which the nature of the case requires, which secures the life of the patient.

The other means are of essential service, and should never be neglected.

As in protracted labours, the symptoms which particularly demand the accoucheur's attention in floodings, are easily recognised; and the means of relief are so few and well-known, that no one, who pays any attention to the subject, can be at any loss in the application of all that defective nature requires to re-establish her in her pristine state.

SECTION II.—*Cases Illustrative of Uterine Hæmorrhage after the Birth of the Child.*

Mrs C., who had born several children under the care of a midwife, requested us to attend in the following instance:—

Mrs C. is about 30 years of age, and is a strong healthy muscular woman. She had been several hours in labour before we were sent for, and on our arrival she was still out of bed and busily engaged with some household affairs. Finding her so employed, we suspected that labour would have scarcely commenced; but on witnessing her take one of the pains, her face flushed, and feeling her pulse strong and quick, we entertained no longer doubt that the labour was making considerable progress. She now went to bed, and on examination per vaginam, the child's head was found considerably advanced into the cavity of the pelvis. The pains continued to increase in strength

and frequency, which, in a short period, produced an extraordinary degree of heat and perspiration all over the patient. The child, in less than two hours after the patient went to bed, was expelled; and almost immediately afterwards the woman felt so greatly fatigued, that she lay on the bed quite listless, and almost motionless. After the child was separated from the mother and given to the nurse, we seated ourselves by the bedside to wait the return of pains to expel the placenta. In a short time, however, our attention was directed to a small, but pretty rapid stream of blood running over the bedside; and, before we had time to examine the extent of the discharge, or the effects it was producing on the patient, a frightful gush of blood issued from the vagina, and rushed over the bedside in a torrent. Almost in an instant the woman appeared like a lifeless corpse. The face was now pale, cold, and shrunk; the pulse was quite imperceptible at the wrist, and a cold perspiration covered the body; indeed, with the exception of a slight effort to respire, no other symptom of life remained. In this appalling state and rapid change not a moment could be lost; and instantly, and at one dose, two drachms of laudanum, mixed with a little cold water, were given to the patient. This dose of laudanum was instantly followed with a wine-glassful of undiluted whisky (two ounces), and a second and third glassful were administered in as quick suc-

cession as the patient could swallow them. As we formerly stated, the power of swallowing remains, in such cases, in a remarkable degree unimpaired; and such was the power of swallowing which this woman possessed, that the three glassfuls were exhibited in not more than three minutes. No one can tell how long his patient, under such circumstances, will possess the power of swallowing, therefore no time should be lost to get the necessary quantity into the stomach. After the third glass of whisky had been administered, we paused for a minute or two to examine the state of the pulse, which being still imperceptible at the wrist, and the hæmorrhage, though greatly lessened, still continuing, we directed other two glassfuls of whisky to be given, and we immediately introduced our hand into the uterus for the purpose of extracting the placenta. No resistance whatever existed to the passage of the hand through the whole length of the uterus, and it passed with great facility to the very fundus; still no contractions came on till we began to grasp and separate the placenta, which operation very soon excited the uterus to act, when both hand and uterine contents were expelled with considerable force.

We may state that the pulse, previous to the expulsion of the placenta, could be felt at the wrist. As soon as the placenta was expelled, and the hæmorrhage had ceased, the woman very soon so far recovered as to enable us to apply the usual bandage to the bowels;

and lay her dry, when she expressed herself greatly relieved and very comfortable.

By mild nourishment, and small quantities of wine for a few days, this woman very soon recovered, without a bad symptom.

If the hand had been introduced into the uterus, in this case, previous to equalizing the sensibility and rousing the dormant powers of action by sedatives and stimulants, its presence would only have increased the flow of blood, by disturbing the coagula which had formed, and were partially suppressing the hæmorrhage; the effect of introduction, too, would have increased the general debility, and consequently delayed for a longer time the return of the contractile powers of the uterus, on which total suppression depended.

From what is related by authors, and from what has come within the range of our own knowledge, though not under our personal notice, the hand has been kept long, and, as far as we can judge, very hurtfully, in the uterus before contraction came on. In some of these cases recoveries were tedious and imperfect; in others life was lost.

In a subsequent labour, the woman, whose case we have just detailed, was again seized with flooding, but it was neither so instantaneous in the attack, nor so profuse as on the former occasion. A drachm of laudanum was only given in this case, followed up with three glassfuls of whisky, and the hand was intro-

duced previous to the coming on of the exhaustion. The hand had no sooner entered the uterus than it began to contract, and the placenta was separated and expelled in a short time afterwards, when the hæmorrhage ceased. In a short time afterwards the usual bandage was applied, and the woman laid dry, when she expressed herself as being very comfortable, and not by any means very weak. This agreeable state, however, did not long continue; for all at once she complained of weakness, and said there was a large discharge. On examination, little discharge appeared externally; yet she was anxious, pulse weak, face pale, and the skin much colder than it was a few minutes before. On placing our hand on the abdomen, it felt nearly as much distended as before the birth of the child. Without the use of any previous means, we instantly introduced our hand into the uterus, which was found filled with coagulated blood. As soon as the hand had reached the fundus uteri, and there expanded so as to embrace all the superior portion of the coagula, the forcing downwards of the grumous mass excited the uterus to contraction, when its contents were forcibly expelled. The hæmorrhage and weakness now permanently ceased. The woman recovered rapidly.

This is the first instance, out of a great number of severe cases of uterine hæmorrhage, after the birth of the child, in which we found it necessary to introduce

the hand into the uterus a second time for any purpose whatever; and we believe, if the case be properly managed, this disagreeable operation will be very seldom required. The quantity of laudanum being less by half a drachm than that which we are in the habit of giving, was the cause, in our opinion, of the subsequent hæmorrhage: for it is incontestible that the quantity of laudanum was not adequate either to equalize the sensibility, or to regulate the actions of the uterus; the sense of pain and contractile power being, at the neck of the viscus, very considerable, whereas beyond this point neither pain nor resistance presented. Probably, too, there was exhibited, by one glass at least, too small a quantity of spirits; for what was not sufficiently powerful in the first instance to produce effects capable of permanently arresting the discharge, was, after it had a longer time to operate on the system, quite efficacious.

In case 7th, of Protracted Labours, it is hinted that it would also be noticed in the proper place as a case of flooding.

As formerly mentioned, the child in this case required our whole attention for about half an hour after its birth.

On our return to the mother, and asking how she now felt, we were alarmed to find that she was nearly unconscious of her situation. Her face was pale, skin cold, and pulse extremely weak. On exami-

nation, the hæmorrhage, though continuing, was not profuse, but the bed was already covered with a sheet of blood previously discharged. We instantly gave the patient 60 drops of laudanum; this dose, it will be remembered, being the fourth 60 drops from the preceding night, and the third within a few hours. The laudanum was speedily followed by a wine-glassful of undiluted spirits, and this quantity was repeated as rapidly as she could swallow it till three glassfuls were administered. We now introduced the hand into the uterus, in hopes that its presence would induce the organ to contract, and expel the placenta; but it passed to the very fundus uteri without any resistance. Other two glassfuls of spirits were now exhibited, and immediately we began to grasp and separate the placenta, by gently insinuating our fingers between it and the uterus. In a very short time after we began this operation the uterus began to contract; and in about three minutes after the introduction of the hand, the uterine contents were expelled, and the hæmorrhage permanently ceased. The woman rapidly recovered. Although we have not noticed the other usual means, they were all duly put in operation, and should never be neglected.

It would be improper to pass over, unnoticed, in this place, that this case was the only one in which we ever witnessed a disagreeable symptom to arise from the use of laudanum in childbed cases. We have

already noticed, that four doses, of 60 drops each, had been given in this instance within twenty-four hours. After the flooding had ceased, and the woman was laid dry, she, in a very short time, fell into a profound apoplectic-like sleep, which at first, we confess, caused us some degree of uneasiness ; for we had never before, in this space of time, given more than three such doses of laudanum. We soon found, however, that by sprinkling the face a few times with cold water, she was easily roused from her snorting slumber, and by a few similar repetitions, her sleep, in about fifteen minutes, became perfectly tranquil.

This disagreeable phenomenon shows, so far as it goes, that the quantities of laudanum we are in the habit of prescribing, in childbed cases, are pretty nearly both the safe and the efficient doses, and that they will neither produce a disagreeable symptom, nor a pernicious effect. The woman recovered rapidly, and was a good nurse.

Mrs —, being long in severe labour under the care of a midwife, a medical practitioner was sent for. After bleeding and other means, the head of the child, after several hours' farther delay, was brought within reach of the forceps, and this instrument was applied for the purpose of extracting the child ; but the spasmodic contractions of the uterus were still so strong, that the efforts of the practitioner to deliver were fruitless.

We were now requested to see the patient; and, finding her skin hot, pulse strong, and other accompanying febrile and inflammatory symptoms, we advised a full bleeding of 20 ounces, and very soon after, a re-application of the forceps. This woman, having already been so long in labour, and the head of the child so low in the perineum, we considered it more prudent to advise delivery with the forceps, than delay two or three hours longer for the purpose of having delivery effected naturally by the usual means.

On the application of the forceps now, delivery was very soon effected, but the woman appeared much fatigued, and lay in an almost motionless state after she was delivered. As the child was very weak we took charge of it, and the other practitioner attended to the mother.

Whether by the uterine efforts, or by the assistance of the practitioner, we do not know, but the placenta was soon removed; and, a few minutes afterwards, a frightful flow of blood was discharged per vaginam, which prostrated the woman in an instant.

Our attention was requested.—She was pale, cold, and pulseless. As we were only suddenly called to the case, we had no laudanum with us, and the other practitioner had only a few opium pills, some of which were immediately given to the patient, and they were instantly followed with five glassfuls of undiluted spirits; all the other means were also employed. She

remained longer in a weak and doubtful state than other cases which we had attended, and her recovery was more tedious; both of which circumstances we, in a great measure, attribute to the use of the solid opium instead of the laudanum—the latter producing its influence more speedily, being in the fluid form.

We attended this woman in her two subsequent deliveries, both of which were of short duration, and nothing unusual occurred till the child was born. Before the usual time for the return of uterine action to expel the placenta, profuse hæmorrhage came on, which sunk the powers of life, and subdued uterine action in a few minutes. By the prompt application of all the usual means, as in the first labour, the hæmorrhage was soon suppressed, and the woman recovered rapidly, and made a good nurse.

In the second instance, we were not more than half an hour in the house till the child was born. Almost immediately after the expulsion of the child, however, the patient became languid, and the pulse feeble, which induced us to suspect that hæmorrhage would soon follow. Sixty drops of laudanum were exhibited to the patient in a glassful of brandy, which revived her very considerably. As no hæmorrhage yet appeared, we waited anxiously for uterine action to expel the placenta; but before this took place, a slight discharge commenced, and though it rapidly increased, it was not suddenly profuse. Before sinking came on, the usual quantity

of laudanum was administered, and, at the same time, the hand was introduced into the uterus, in hopes that its presence, before exhaustion came on, would excite the uterus to act; but in this we were disappointed, for the viscus remained as torpid as if no hand had been there. The placenta was adhering to the uterus with an unusual degree of firmness, which required both patience and care in the separation; but before this was accomplished, the hæmorrhage was so profuse, and the patient so exhausted, that the full quantity of spirits was exhibited. In a short time after the system was thus fortified, and all the other means put in operation, the separation of the placenta was effected; when the expanded hand was placed behind it and any coagulated blood present, and on forcing the whole towards the external opening, uterine contractions came on and assisted in the expulsion.

This was one of the most difficult cases we have ever met with, on account of the great difficulty in separating the placenta from the uterus; yet the hæmorrhage permanently ceased, and the woman continued to improve till the third day, when she was seized with a violent rigor, and pain of bowels. We saw her in a few hours after this attack, and from the great heat of skin, quickness and sharpness of pulse, with acute pain of bowels, we hesitated not a moment regarding the nature of her complaint.

Her bowels being in a sufficiently open state on the

preceding day, we now bled the patient freely from the arm, and as soon as she was sufficiently recovered from the operation, a smart purge of calomel and jalap was administered. She was greatly relieved after the bleeding and purge, and by keeping up a pretty regular effect on the bowels by gentle laxatives and clysters, her complaints were removed in a few days. This attack, however, rendered her recovery much slower than it otherwise would have been, and she was obliged to give the child to a nurse for about a month. At the expiry of this period she was certainly too weak to take charge of her child, and as yet she had very little milk in her breast; but as the child was not very fortunate in its nurse, she resolved to nurse it herself. She progressively improved and continued to suckle her child; and, about two months after delivery, both mother and child were in a most thriving condition.

This is one of the cases which was seized with puerperal inflammation, then prevailing. At the immediately succeeding delivery of this most worthy and agreeable female we were absent, and another practitioner was employed. We were informed, by those who were present at all her former deliveries, that at this time the hæmorrhage was not so profuse as on former occasions; but the woman continued a week or two in a weakly state, and died, as was medically expressed, from weakness.

It would be unfair in us to make any strictures on the treatment of a case that we neither saw, nor had any detailed account of from the practitioner who attended; but from what we could infer, from the description given by the by-standers, the result of this case bears considerable analogy to others which have come to our knowledge, and those described by authors, in which the means used for the suppression of the hæmorrhage had not that tendency, or had no tendency at all to restore and re-establish that uniformity and energy of sense and action, on which health and a continuance of life depend.' The wellbeing of the patient does not depend so much on a return of heat and strength of pulse, as upon a restoration of general uniformity of functions in all the vital organs, which can only be safely and certainly accomplished, in extreme cases, by the due administration of laudanum and cordials.

Mrs M., who had born several children, was attended by us in the following case; she possessed but a weak state of health.

This woman was but a short time delivered till profuse hæmorrhage came on, which required all the usual means we have noticed to be put in active operation. The discharge soon ceased, but the patient, in about half an hour afterwards, vomited copiously. No bad effects resulted from the vomiting, indeed she seemed benefited; for before this operation she was

loaded and squeamish at stomach, whereas afterwards she became lively and more active.

As in the last case, this woman was seized, on the third day after delivery, with a violent rigor, succeeded with great pain of bowels, and other inflammatory symptoms, which induced us to treat her in every respect as in the preceding case. The obstinacy of the symptoms to yield, in this instance, was greater than in the former case; but by perseverance with purgatives and clysters, she recovered her usual state of health in a few weeks.

Mrs M. was attended by us in two succeeding labours, both attended with flooding.

In the first instance, the hæmorrhage was easily suppressed by the active employment of the usual means; but, in the second instance, the case was a little varied, and on this account we shall notice it more at length.

In a short time after the placenta had been expelled, the woman bound up and laid dry, a discharge came on, which produced considerable, but not alarming weakness. The usual quantity of laudanum was administered, along with two glassfuls of spirits. By the use of these means, the hæmorrhage seemed to be suppressed, and the woman at once revived to her usual state; but, in about twenty minutes afterwards, she again complained of great weakness, and said the discharge was much increased. On examination, the external discharge was not, by any means, so

great as to induce the present degree of weakness, for by this time the pulse could scarcely be felt at the wrist. We at once suspected internal hæmorrhage, but on applying our hand to the abdomen, no fulness of the belly whatever existed; and although the uterus felt as if completely contracted, yet, when grasped, it communicated a flabby sensation to the hand. Other three glassfuls of spirits were now exhibited, with all the other usual applications, when the woman again revived so far, as to leave little doubt that the hæmorrhage had ceased permanently. In a short time, however, another discharge came on, with its accompanying weakness, when we at once introduced our hand for the purpose of ascertaining the real state of matters within. On introducing our hand into the vagina, it was completely gorged with coagulated blood, and the os uteri was so much closed that we found it would be difficult to pass our hand through it. We contented ourselves, in the meantime, by removing a clot of blood filling up the uterine orifice, and emptying the vagina. As soon as the coagula were thus removed, the hæmorrhage permanently ceased, and the woman recovered rapidly.

These are a few of the numerous cases that have come under our care, and embrace all the varieties in this form of hæmorrhage which, we think, deserve particular notice.

The following case is intended to show that occa-

sionally it is requisite to pursue a similar mode of treatment, when neither external nor internal hæmorrhage exists :—

Mrs I. came under our care of her second child. She had been for several years in a very infirm state of health.

As her labour, though of short duration, was severe, 60 drops of laudanum were administered some hours before the child was born; and as the severity of the pains left her exceedingly weak, a little whisky and water was allowed her, and the same quantity was repeated after the child was born. Although there was considerable discharge, both at the birth of the child and when the placenta was expelled, the woman's strength did not seem at all affected; and, after the abdomen was well bound, and the patient laid dry, she felt very comfortable, and the pulse remained of good strength. About half an hour after the birth of the child, she still said she felt very comfortable; but soon after this period, however, she complained of weakness, and on examining her pulse, it had ceased to be perceptible at the wrist; her face was pale and contracted, and the skin cold and moist. Seventy drops of laudanum were instantly administered, and followed with two glassfuls of undiluted whisky; all the other means usually employed in floodings were also employed. On examination, the external discharge was not greater than is usually met

with, and the abdomen was as flaccid as when the bandage was applied. As soon as the second glassful of spirits was swallowed, the pulse could be felt at the wrist, but in a short time it again almost entirely vanished, when a third glass of spirits was exhibited. From this time she gradually recovered.

This is an instance of exhaustion, exactly similar to some others which we have heard and read of, that terminated fatally, the discharge not being, by any means, to such an extent as to account for the death of the patient.

Had this patient been treated by giving her 30 or 40 drops of laudanum, and a small quantity of wine or diluted spirits, and the exhaustion increased by the introduction of the hand into the uterus, when not called for, in all probability she would have perished.

It is always of the utmost importance to ascertain that no dangerous internal hæmorrhage exists, but we believe that this cannot take place in the uterus, so as to endanger life, without being perceptible to the hand applied externally to the abdomen; and when the discharge is kept up, as in the case we have noticed, by the vagina and uterine orifice being distended by coagulated blood, this grumous mass should be removed without subjecting the woman to the pain and fatigue of introducing the hand into the uterus when it is not called for.

We have never seen a case of uterine hæmorrhage,

after the birth of the child, in which the woman had not the power of swallowing; but were such a case to occur to us, we should not hesitate to inject a pound of spirits and *ʒiij* of laudanum into the bowels, and to retain it by pressure on the fundament.

The uniform success that has followed the foregoing mode of managing uterine hæmorrhage, should speak highly in its favour; and, after the most careful research, we state advisedly, and without fear of contradiction, that it is the most natural, simple, safe, and efficient mode of treatment of any on record.

SECTION III.—*Opinions and Practice of others.*

We shall now take a short survey of the opinions and practice of other authorities on this important point.

Dr Burns remarks, “We can, in general, save the patient in flooding if we are on the spot when it happens; but if much blood have been lost before we arrive, the strength may be irreparably sunk.” Again he states, “In flooding, after the placenta is partially or entirely separated, the vessels which passed from the uterus, particularly the venous apertures, continue to pour out blood until syncope check it—a state too often only the prelude to death.” He further informs us, that when the separation of the placenta is partial, the effect of flooding appears in all its danger, for it is not unusual for the woman to die, if not assisted, within ten minutes after the birth of the child. These

are instances, from no mean authority, to prove the danger and fatal termination of flooding after the birth of the child.

The mode of treatment adopted by this great man appears to us so decidedly defective, that in extreme cases it gives the woman scarcely a chance of recovery. The dose of laudanum he prescribes in such cases is from 40 to 60 drops, and brandy to be given pure or diluted in small doses. Now, no one would hesitate to administer such quantities of opiates and cordials in cases in which they were really demanded, although there was no present danger of the patient sinking from exhaustion; and if such doses be requisite to relieve ordinary symptoms, how is it possible they can be effectual in rousing the energies of the system which are on the verge of being "irreparably sunk"? The means he approves of are of a proper description, but they are rendered perfectly inefficacious on the principle that the power is inadequate to the end. They are right in kind, but wrong in degree.

The doctor further informs us, that when a woman is known to be subject to hæmorrhage after the birth of the child, perhaps, in most of such cases, whenever the child is born, the hand should be introduced into the uterus. We are not to meddle with the placenta, he says, but merely by the presence of the hand to excite contraction of the womb.

We do not approve of this advice; it is an awkward

and an unnatural mode of procedure ; it is exceedingly disagreeable to the woman, and even subjects her to considerable pain. It is at best, too, a doubtful remedy ; for we have already seen that, when there is a strong tendency to hæmorrhage, unless appropriate means be used, it will come on even after the placenta has been previously expelled by the efforts of the uterus. A more correct view of the case, then, we think, as well as a more correct practice, is never to introduce the hand into the uterus until necessity demands it ; but rather by internal means, as the full dose of laudanum, and a glass or two of spirits—if the symptoms, as torpor and a sense of sinking, require such means—to regulate and improve the universal and local energies. If the case be conducted in this manner, it will never be necessary, as far as we know, to retain the hand in the uterus, waiting for its contraction.

Dr Burns again states, that after the placenta is removed, and the patient bound up and laid to rest, we sometimes meet with most appalling cases. In such cases, too, Dr B. introduces the hand into the uterus with the view of applying pressure internally on the bleeding vessels, while, at the same time, he applies counter-pressure externally with the other hand on the abdomen. No remedy, he says, can be depended on without the use of the hand. Forty or fifty drops of laudanum are to be administered, with the other usual means.]

The introduction of the hand into the uterus, in floodings of this description, for the purpose of applying pressure on the mouths, or the supposed mouths of the bleeding vessels, now approved of and practised by a considerable number of leading authorities, and deemed deserving of imitation by many others, is a mode of practice, we think, highly objectionable, and, so far as we have observed, never required; for by the other more rational and efficient means we have always succeeded in suppressing hæmorrhage of this description, saving the life of the patient, and effecting a speedy recovery. By the use of the term *required*, however, it may seem that we are of opinion, that were other means to fail in suppressing the hæmorrhage, the introduction and use of the hand, as advised by these authorities, might be serviceable; but we do not mean it to convey any such notion, for we verily believe it was never useful in suppressing the hæmorrhage, or in accelerating the contractions of the uterus. On the contrary, the distending of the walls of the already enfeebled organ, and disturbing any coagula that may have formed, by the introduction of the hand, increases the discharge; and in cases so appalling, the presence of the hand has no effect whatever in exciting uterine contractions, until the system is put into a more energetic state by the use of appropriate remedies, or until it has had time to recruit by its own native efforts. Again, the retaining of the hand in the uterus, and

using compression on the supposed bleeding surface, must prolong the general feebleness, and consequently delay contraction. But this is not all; the resolute pressure on the tender surface of the uterus is attended with serious injury—either terminating in the death of the patient, or in an imperfect or tedious recovery. And farther, in such cases the placenta has been expelled for some time; the accoucheur has, consequently, after the introduction of the hand, to ascertain the point to which the placenta adhered, in order to apply his pressure to the bleeding surface. We shall allow that he has fixed upon the bleeding surface, and that he really feels the blood flowing, and accordingly pressure is applied; but the pressure may be made on the stream of blood at a small distance from the open mouths of the vessels, as likely as on the open mouths themselves. The practice we believe is useless; nay, more, we believe it is highly pernicious.

Dr B., in speaking of spasmodic contractions of the upper part of the cervix uteri, either before or after the expulsion of the placenta, states, that “If a patient feel sick, or weak, or the pulse sink, or she become pale soon after delivery, whether there be or be not hæmorrhage, we may be sure that the spasm has taken place, or that she has had formerly an affection of the spinal cord, which is now operating in a dangerous way; and that, in either case, nothing but prompt measures can preserve life.” “We are,” says he, “to

give immediately a full dose of laudanum." His full dose, we presume, is 40 or 50 drops. "We must also without delay," he states, "introduce the hand into the uterus, and slowly and cautiously dilate the stricture," and so forth. Now, with all due deference to so justly celebrated an accoucheur as Dr Burns, we beg leave to say, that from the case of Mrs Ings, which we have given, as well as others of a similar description that have come under our care, there does not appear to us the least necessity in such cases to torment the woman by the introduction of the hand into the uterus, for the purpose of removing the stricture in question. The proper quantity of laudanum, 140 drops, if none has been lately and previously exhibited, as in Mrs Ings' case, and a due supply of ardent spirits, with the other usual means as in flooding, will in a short time equalize the nervous influence, and remedy strictured action.

Dr Collins informs us, that in sixty-four cases of hæmorrhage occurring between the birth of the child and the expulsion of the placenta, seven proved fatal; and in forty-three cases subsequent to the expulsion of the placenta, four of the women died. The introduction of the hand, the firm compression of the uterus, and the application of cold water in a stream to the hypogastrium are, he says, the most potent remedies.

So great a proportion of deaths, from uterine hæmorrhage after the birth of the child, appears to us,

to say the least of it, a very great mortality. But since Dr Collins' most potent remedies consisted in those only which we have just enumerated, we are not surprised that so many women should have died, and, except the cold water, as we think, literally without the employment of a potent remedy. The doctor seems to entertain similar views with Dr Burns, regarding the propriety of introducing the hand into the uterus, when the patient shows alarming symptoms of weakness, even although there should be neither manifest signs of internal nor external hæmorrhage. We have already stated, that, in our opinion, the practice of introducing the hand into the uterus for any other purpose than that of immediately extracting something from its cavity, is a reprehensible proceeding replete with danger.

Dr Hamilton deprecates the practice generally pursued, in retention and adhesion of the placenta, of insinuating the fingers between it and the surface of the uterus—a practice, he says, which is apt to excite inflammation of the womb, and sometimes even to produce laceration of its substance; and recommends that pressure be made exclusively on the foetal surface of the placenta, bringing its circumference towards its centre, and detaching leisurely and carefully all that can be separated by this manipulation. Firm pressure on the uterine tumour, from the abdomen, must be steadily kept up all the time. Dr Hamilton assures

us, that in his extensive experience he has very *rarely* observed any injurious consequences to arise from leaving the indurated maternal portion of the placenta in the uterus.

In the case of retained placentæ, we follow the course pursued by the majority of accoucheurs, which is that of cautiously separating it from the uterus, by a careful insinuation of the fingers between the two bodies. By this mode of procedure, we are not conscious of ever having left attached to the uterus any portion of the indurated placenta, or of having, at any time, produced injurious consequences to the uterus by this mode of separation. But we well remember one very interesting case, of a young woman, in which the accoucheur found it to be his duty to allow a portion of an adherent placenta to remain attached to the uterus; and this woman for several years, if not always, remained in a very imperfect state of health.

On the subject of flooding, Dr Hamilton observes, "Should hæmorrhage occur after the placenta has been expelled, firm pressure with the hand over the uterus, and the application of cold water will generally suffice; but if these means fail, then the most effectual are the introduction of the right hand into the uterus, and the firmly grasping of it outwardly with the left one at the same time, combined with the internal administration of stimulants (if the patient be very low), and the directing of a stream of cold water from a

height on the hypogastrium. A large opiate," he says, "is usually necessary afterwards, in such cases. Great restlessness, occurring after any profuse loss of blood, is always a dangerous symptom, and the sooner it is effectually checked by an opiate the better: 30 or 40 drops of laudanum, in union with a cordial, such as brandy and water, may be given every twenty minutes until the patient is lulled to quiet."

It is rather remarkable that a gentleman of Dr Hamilton's powers of mind, and extensive experience, should not have devised, long ere now, some more refined, more agreeable, and more safe method of treating uterine hæmorrhage, than that which he has so lately promulgated. To behold a woman just delivered of a child, and sunk almost to lifelessness, immediately afterwards, from loss of blood, with the hand and arm of her accoucheur thrust into her womb, and with the other hand using strong pressure externally over the uterine region, while a second individual was pouring cold water from a height on her naked belly; would certainly be a sight calculated to excite compassion. Even were life preserved by such severe and half measures, what must be the state of the almost drowned and bloodless patient, laid on a bed deluged with water? For some considerable time, at least, she cannot be removed from such an ocean, and to remain in it must deprive the woman of her remaining chance of a fair recovery.

The advice which the doctor gives us, of administering 30 or 40 drops of laudanum in brandy and water, when great restlessness comes on after profuse hæmorrhage, is, from what we have formerly said, not a safe one, because the means bear no proportion whatever to the end they are intended to perform; for although they are to be repeated, so rapidly does danger approach in such cases, that before the period of repetition arrives, the recoverable state of the woman is beyond their reach—not dead, perhaps, but irrecoverable.

Dr Merriman, in his very useful work on *Midwifery*, notices a number of minor means to be used in uterine hæmorrhage; but the two of the greatest importance, when the woman is sunk to the lowest degree of existence, he seems to view in a doubtful and indifferent light. That so enlightened an accoucheur should still dream that the use of laudanum subdues natural uterine contraction, appears to us very extraordinary, since the contrary is incontestibly the fact; for any observing individual who chooses to give the full doses of laudanum that we have advised, and according to the directions we have given, will find in every case, that laudanum does not subdue natural uterine action, and that it is only the unnatural inefficient pains that its influence is effectual in subduing. The abundant testimony that could be advanced in corroboration of what we have stated, is surely sufficient to set the

question for ever at rest. The same accoucheur places too little confidence in full doses of undiluted spirits. He notices a case on the authority of Dr Atkinson, which goes to show that 80 drops of laudanum had the effect of so far paralyzing the uterus, as to render it incapable of farther contraction, and the patient died. Now, this woman would have died although she had got no laudanum ; neither it nor the other accompanying means being commensurate to the nature of the case ; and we assert, after extensive experience and uniform results, that if this woman had been treated in the manner we have advised, she would have recovered.

Dr M. notices another case in his Appendix, No. 27, which he considers favourable to his views, but the doses in this instance are as unreasonably large, as in the other they were too small ; for the accoucheur states, that he gave 50 drops of laudanum every fifteen minutes till his bottle was empty (containing about three drachms and a half).

It is fortunate that this man's bottle got empty, for it would appear, that he was resolved to supply his patient with 50 drops every fifteen minutes, not till she recovered, but till she was " sleeping dead " ; and the man who would give three drachms and a half of laudanum to any one in so short a period, and afterwards state publicly that he had done so, would certainly make a similar statement although he had given a

double quantity, which might have caused a legal investigation into his conduct, he himself apparently not being aware of the inconsistency of its nature. That Dr Merriman should have brought forward so monstrous a case as favourable to his views, shows clearly, that he has not given the subject that deep consideration to which it is entitled, and which he is well capable of bestowing on it.

Dr Barlow, in speaking of opium in uterine hæmorrhage, says, that although recommended on high authority as almost a specific in uterine hæmorrhage, his experience does not warrant such a conclusion; for in cases of syncope connected with flooding, if intended to produce a sedative effect on the system, it may so far retard arterial action as wholly to suspend the vital functions, and expose the patient to imminent danger.

Views so vaguely entertained and expressed, of so valuable a medicine as opium, for the relief and safety of the parturient woman, are calculated to draw the veil over that improvement in the management of lying-in women which has been so notoriously neglected, from the earliest period to the present time.

What inquiring and practical man could be satisfied with the view expressed by Dr B., when he states that in syncope from flooding, opium may so far retard arterial action as wholly to suspend the vital functions? We believe it is generally admitted that the effect of

opium, in the first instance, is stimulating, and there is no doubt that in many instances it is rapid in its operations; now, it being a stimulant, and rapid in its operation, renders it a medicine exactly fitted for the depressed state to which he has adverted. Besides, we have stated, after careful observation, that the important advantages derived from the use of laudanum in cases of great depression from flooding, arise from the instantaneous influence it exerts in equalizing the nervous influence, the muscular motion, and the vascular action. As for ourselves we state fearlessly, that on the faith of the soundness of these views we have acted; our data have been numerous, and our conclusions have been uniform. What Dr Barlow advances appears to us a mere theory.

The defective doses of laudanum used in childbed cases, often either disturb the patient, or prove useless; and when the case terminates unfavourably, the blame is laid on the opium, when in truth it rests entirely with the individual who administered it.

We venture to affirm, that no accoucheur, in child-bearing cases, or in flooding after the child has been born, will in future administer laudanum in the manner we have advised, and complain that it has proved injurious; but, on the contrary, that it has operated uniformly in a favourable manner. If any one, however, should feel it to be his duty to contravene our averment, we beg to inform him, that it cannot receive

credence by us unless accompanied with a distinct account of the case, and the manner in which the means were employed; and we doubt not that all who are eagerly inquiring after truth, and anxious for further improvement, will hold sentiments, in this respect, in unison with our own.

Dr Barlow seems to think that it requires much discrimination and judgment to determine the precise time, and to what extent it may be requisite to administer cordials; but it does not appear to us that this is so delicate a point of practice as he would seem to consider it. No one would think of administering cordials in a case of flooding, as long as the pulse continues pretty strong, skin hot, and face scarcely paled. But, as we have formerly noticed, although the pulse be of tolerable strength, and the discharge moderate, yet if the woman complains of great weakness, much advantage will be derived by giving 80 or 100 drops of laudanum, and a glassful or two of undiluted spirits; and by such procedure flooding to an alarming degree may be prevented. He farther observes, that notwithstanding the utmost caution and promptitude in cases of morbidly retained placenta, accompanied with uterine hæmorrhage, the system sometimes becomes exhausted, and the patient inevitably sinks from debility, or dies from convulsions.

We trust that after this admission, Dr B. will administer both laudanum and cordials with a less

timid and sparing hand than heretofore; and we hesitate not to assure him, that, if at all, he will have to tell this tale of wo much seldomer than formerly.

Dr Ramsbotham informs us, that in hæmorrhage after the birth of the child, the attack is sometimes so unexpected, and proceeds with such rapidity, as to induce, in a few minutes, the most alarming symptoms. Nay, he says, sometimes the patient is irretrievably depressed before any steps can be taken for her safety.

How far this mournful statement made by Dr R. is correct, we will not pretend to say; however, such hapless cases have never come under our observation, nor are we in possession of any information which furnishes us with evidence that warrants such a conclusion. Every woman, however depressed from recent flooding after the birth of a child, is in a state in which steps should be taken for her safety. None of the cases reported by Dr Ramsbotham himself were in a state which rendered them incapable to swallow; and in every instance in which this power remains, the patient is not to be considered irretrievable, and steps should be taken to save the woman, and may really be taken with every prospect of success; but, moreover, we have stated that when the power of swallowing has ceased, spirituous clysters should be tried.

The doctor, however, very sensibly, and very correctly remarks, that if repeated faintness, or actual syn-

cope come on from hæmorrhage previous to the removal of the placenta, it appears to him desirable to procure a revival from syncope by stimulants or other means before the introduction of the hand, else the patient may not survive the operation. He farther states, that he is not an advocate for the exhibition of large and repeated doses of laudanum in uterine hæmorrhage from the presence of the placenta. Now, who could be guided in their practice by expressions so vague as those made by Dr R.; he neither mentions the quality nor the quantity of the cordials he would administer, and on the subject of opiates he is equally indefinite. We have repeatedly stated that every thing depends on the quantity and quality of our means.

In the cases which he gives of uterine hæmorrhage after the birth of the child, the second one is fatal. The woman was not pulseless when he arrived, and it would appear that she bore quite well the extraction of the placenta; for he states that she died within an hour after he left the house. We are not told what mode of treatment was pursued in this case; but he states that in cases of this description, he always gives such stimulants as the house affords, as a temporary expedient to keep up the action of the heart. That a woman so circumstanced, as this one is reported to have been, should be left by her accoucheur when on the very brink of dissolution, and at the only moment when assistance could be afforded her with any chance

of success, is no less extraordinary than it is true. That men should take upon themselves the responsible charge of their fellow-creatures, under such awful circumstances, and leave them grappling with death just at a moment when their sinking energies might have been so far invigorated by the assistance of a skilful hand, as to have deprived the insatiable monster of his prey, may well excite wonder and alarm.

We are left totally ignorant regarding the treatment in this melancholy case;—it is one of those, however, that loudly calls for the investigation of which we have already suggested the propriety.

In his third case, also a fatal one, he informs us that he gave spirits and water. It deserves particular remark, that he makes no mention of the incapacity of his patients to swallow; consequently, from the result of our own cases, we have every reason to think, that the means of relief were not by any means proportionate to the end.

Other fatal cases of a somewhat similar kind are related.

Dr. Ramsbotham farther notices, that in cases of collapse after labour, without unusual discharge, the progress of the symptoms are usually so quick as scarcely to allow time for thought or action; the fatal scene is terminated sometimes within one hour after the first complaint is made. The treatment seems to have consisted in brandy and æther. These are cases

exactly like Mrs I.'s which we have noticed, and are easily curable by the means we have alluded to.

Dr Stewart in his valuable work on uterine hæmorrhage after the birth of the child, also takes notice of such cases as we have just referred to. He states that the loss of a few ounces of blood, in some women, will sink the system beyond the power of recovery.

We truly consider that it is too bad for any accoucheur, after he has witnessed a fatal case of this kind, to lay his head on his pillow for repose, with his mind fully satisfied that the loss of a few ounces of blood was the cause of such a catastrophe.

Neither do we think that it at all accounts for the production of these peculiar cases to say, that spinal affection is present, or, as Dr Ramsbotham has hinted, that the communication to the mother that her child is still-born; for in Mrs I.'s case the child was born alive and quite active, and she never complained to us of spinal affection, neither before nor since her delivery.

Whatever may be the cause of this peculiar state of exhaustion after childbirth, certainly it does not appear as yet to be accounted for; however, we hazard the remark, that if it be not analogous to that singular sense of sinking which frequently precedes dangerous floodings, it may by the same kind of means be as certainly cured as flooding.

Dr Stewart appears to be one of those who approve and practise the introduction of the hand into the

uterus in cases of floodings, and retaining it for the purpose of pressing on the bleeding vessels, and, in our opinion, like many others, he carries this step of his treatment, in cases of great exhaustion, to an unwarrantable length.

The internal means administered by Dr S. are hot brandy and water with laudanum.

The treatment of profuse hæmorrhage of any kind by hot internal stimulants is rather a novel practice ;— we should prefer, as long as the hæmorrhage continued, both internal and external applications to be quite cold. If the doctor, in his 10th case, had given, at its commencement, a double quantity of laudanum at the first dose, and perhaps four times the quantity of brandy (for the quantity is not specified), he might have saved himself much trouble, and his patient much blood. There is no propriety nor necessity, under such circumstances, to cram a woman's stomach with soup, particularly if she has been supplied with a suitable quantity of undiluted spirits. This woman had a tedious and painful recovery.

The 16th case is said to have been reduced to the last extremity, with a retained placenta. A large dose of laudanum was immediately given to the patient, and the hand was introduced into the uterus, which did not contract for twenty minutes afterwards. During this period of uterine inaction, we are told that 200 drops of laudanum, and as much

brandy as the patient could swallow, were administered. After the expulsion of the placenta, the opium and brandy were continued till all symptoms of danger disappeared.

What to make of a description of this kind defies all comprehension. The large dose of laudanum he informs us of, might have been 60 or 80 drops, or it might have been double that quantity. The patient is said to have been supplied with as much brandy as she could swallow; for any thing that we know, then, the quantity of brandy may have been a wine-glassful, or it may have been a gallon. However much inclined the writer may have been to convey useful knowledge, on topics of so great moment, we trust that he, and every one else, will see that no one, however much he might feel inclined to pursue the doctor's mode of treatment, could possibly do so with any degree of certainty, from the manner in which he has expressed himself.

One would be led to imagine, that after the second dose of 200 drops of laudanum, and as much brandy as the patient could swallow, she would have received all the advantage that such means were likely to afford; but we are told they were continued. From the manner, then, in which the case is related, we cannot even conjecture how much opium and brandy were consumed. Now, we think it must be evident to every one, that since both opium and brandy had to be used before

the uterus began to contract, it would have been better practice to have administered these means in the first place, in order to restore sense and the power of action; and immediately afterwards to have introduced the hand, when, so far as we have observed, the uterus would have begun to contract in less than five minutes, instead of twenty.

Although this respectable author deserves much praise for the boldness with which he has come forward to impress on the minds of his brethren, the advantages to be derived from the use of laudanum in floodings, and the extent to which it may be given without producing fatal effects; yet we cannot divest ourselves of the notion, that the enormous quantities of this drug, occasionally given by Dr Stewart, had the effect of increasing the danger, and protracting the recovery of his patients. We consider ourselves justly called upon to make this observation, from the agreeable and uniform results which followed our own method of treatment.

Dr Stewart farther observes, that it has been mentioned by authors, that a degree of fever, accompanied with a state of great irritation of the general system, frequently occurs on the third day after delivery, and as a consequence of uterine hæmorrhage, and that it often proves fatal. It is reasonable to suppose, he says, that this fever, considering the time of its accession, is the milk fever, increased in severity, and

perhaps changed in its character, in consequence of the patient's state of extreme debility. This disease, he again states, as usually described, has never occurred after any of the cases of uterine hæmorrhage which have come under his care. With the exception of the two cases of puerperal peritonitis, to which we have formerly adverted, we rejoice to be able to bear testimony to a similar result in all the cases of uterine hæmorrhage that have come under our care.

This absence of febrile symptoms in such cases, we doubt not, depends on the immediate equalization of sense and action, by which all the important functions of the body are at once and uniformly re-established.

Dr Ingleby is another advocate for the introduction of the hand into the uterus, for the purpose of applying pressure on the bleeding surface; and having once commanded the bleeding vessels, he says, it may be needful to give cordials, but not previous to this.

We cannot too strongly impress on the minds of all those entering on the practice of midwifery, that this advice of Dr Ingleby's will not do in practice; for the torpor and inaction of the uterus, which are the cause of the hæmorrhage, are greatly augmented by the profuse loss of blood, and the rapid and effectual contraction of the organ can only be re-established by immediate and general stimulation, and if this

be delayed till the hæmorrhage cease, the precious opportunity may be lost.

Dr Gooch takes notice of floodings accompanied with a firm contraction of the uterus. This deviation, he says, is attributable to an extraordinary force and frequency of circulation, which do not allow the orifices of the vessels to close. In the management of such cases, he advises the sovereign remedy, the introduction of the hand closed, to be applied to the bleeding surface, and counter pressure on the outside to be made at the same time by the other hand. This uncouth mode of arresting uterine hæmorrhage, we see, holds a chief place in the minds of a considerable number of accoucheurs of no mean name and experience; yet, after all that has been said of its merits, we still doubt the propriety or necessity of ever putting it in operation.

If the hæmorrhage were occasioned by the causes assigned by Dr Gooch, there could be no necessity for adopting the rough mode of treatment he recommends; for, if the discharge were such as to create alarm, it would, before danger could arise, remove the force and frequency of the circulation, the presumed cause, when the hæmorrhage would cease, at least from that source, and if it should continue from the usual reasons of hæmorrhage, more mild and efficient means could be employed.

But we unhesitatingly object to the notion, that the force and frequency of the circulation are ever the cause of dangerous uterine hæmorrhage after the birth of the child. Every accoucheur must have attended cases in which, after delivery, the circulation was greatly accelerated, and the pulse strong, yet no flooding would occur, at least, to require the treatment advised by Dr G.

We have already expressed our opinions regarding uterine hæmorrhage after the birth of the child, and after careful perusal of the various authorities who have written on the subject, we see no reason whatever to alter our opinion. The causes, then, of this form of hæmorrhage treated by Dr Gooch, are of the very same description which are present at every other form of hæmorrhage, such as we are considering—a disturbed and irregular state of the nervous energy and vascular and muscular action. Dr G. informs us, that the uterus, in such cases, is firmly contracted; but this cannot be the uniform state of the organ, or the hæmorrhage would be unquestionably suppressed. Now, it will be found—we speak from experience—that however firmly one part of the uterus may be contracted, another portion will be relaxed, and from the latter the blood will principally flow. All that we have found necessary in the management of such cases generally, is to give a drachm and a half of laudanum, and lessen the quantity of bedclothes;

when these are not effectual, cold wet cloths are applied. Cordials should not be given until a sense of weakness come on, which seldom takes place to an alarming degree in such cases; but whenever the symptoms require stimulants they may be used as freely as in other cases.

The celebrated Dr Denman states that, "when there is a present hæmorrhage, so important as by its violence or continuance to threaten danger, the *placenta* ought immediately to be extracted out of the cavity of the uterus."—This is not an opinion he states, but a rule of practice.

He continues to state, that, if there have already been a hæmorrhage, so profuse as to occasion danger and the common consequences of loss of blood, as fainting and the like, the *placenta* ought not then to be extracted till the patient is somewhat recovered from her extreme debility, as the danger would thereby be increased, and she might die during, or immediately after the operation, as, he says, I have seen and known in too many instances. So far the doctor's views and practice are very judicious, and ought to have their due weight with those who, without reviving the almost annihilated energies of the system, introduce the hand into the uterus, when both it and the patient are alike insensible to its presence. He, however, makes a remark which we believe will be responded to by few; when speaking of coagula in the uterus after

the expulsion of the placenta, he states, that he has never attempted the introduction of the hand for the removal of coagula, but has left them to be expelled by the action of the uterus. If such views have reference to the coagula which distend the uterus in internal hæmorrhage, we fear, if left without assistance, it would never expel them.

The doctor also expresses himself in a very desultory and unsatisfactory manner, on the subjects of cordials and opiates. Cordials, he says, may be given in small quantities, and opiates should not be given too freely. No one can be benefited by such directions, and the inexperienced must be confused. How much better is it for a man of experience who presumes to convey useful instruction to all, but particularly to those just entering on their professional avocations, to state distinctly the nature of such and such cases, and the kind of means, and exact quantities of such means, which his experience has taught him to be expedient in the few forms or varieties of flooding which take place after the birth of the child!

To show that the doctor's mind was not fully master of his subject, however, he acknowledges, at the end of the section on flooding, that the subject yet admits of much improvement.

On the perusal of a periodical, some time ago, our attention was particularly arrested by the relation of several cases of uterine hæmorrhage after the birth of

the child. We regret that we cannot recollect either the title of the periodical, or the name of the author, but our impression is, that the cases were of German origin. The circumstances that riveted them on our mind were, that they were all treated in a manner of which we have no confidence; that the state of depression was very great; that none of the patients died immediately, but that all, or the principal part of them, died as the consequence of the hæmorrhage, and at no very distant period afterwards. These few mournful cases speak volumes in favour of the treatment we have advocated, and which we uniformly practise.

Concluding Observations.

Thus we have deemed it to be our duty to compare views and experience of some of the most eminent men in the profession of obstetricy, with those of our own; not so much to exhibit the superiority of our method of employing remedial means, as really to show, as we think, that the grounds on which we found our practice are more in accordance with the laws and operations of the uterus during parturition, than any that have come under our notice. And if we have in any way, either by mis-statement or misapprehension, offended any of these gentlemen, whom we at once recognise, generally speaking, as by far our superiors in all these acquirements which distinguish

men of science and learning, we shall be most ready to correct our errors, and acknowledge our faults.

We doubt not, that the confidence we have expressed in the almost universal success of our treatment, will, at first sight, create misgivings in some minds; but the few subsequent observations will sufficiently elucidate the matter, so as to satisfy the most scrupulous inquirer. Were any one to express the same confidence in the treatment of acute general disease, in which one or more of the vital organs were implicated, we would be among the first to denounce a notion so absurd; but by the most cursory investigation we will see, that the uterine complaints, to which our attention has been directed, are widely different in their character. For when we take a view of the structure of the uterus in its parturient state, we find it is comparatively a simple organ; there is no complication of structure, no subtlety of function, no irremediably deranged condition; indeed it seems a kind of parasitical body, engaged in no complicated operations, but existing in a passive condition, furnished with all its necessary supplies, in a prepared state, from the general source. An organ so constituted and so circumstanced, as to be capacitated to retain and support the foetus to the full period of utero-gestation, cannot well be in a state so disturbed as to render it incapable of being so far speedily recovered, as to

enable it to perform its great and important function, the expulsion of the child.

What we have now said, may be put in a still stronger light, by what we formerly noticed, namely, that the uterus is remarkably independent of the general system, as regards its healthy or diseased condition ; for the system may be greatly deranged during parturition, when the uterus apparently is perfectly sound. And, on the contrary, there may be much uterine derangement, in which it may require the most active general means of relief in order to effect delivery, when the patient, at the commencement of labour, expected a speedy delivery, her health being so good.

Now, we know that since Adam's fall, disease and death were declared to be the lot of all mankind; and, remarkable as it may appear, woman, as being first in the transgression, in addition to the common sickness and death, is doomed to sorrow in childbearing ; but there is no suggestion in the decree, or any thing in the whole operation of bringing forth children, to entitle us for a moment to believe, that the parturient woman was destined to incapacity in the expulsion of her child, or even to the danger of losing her life in the process.

In farther corroboration of these statements, we have also already shown, that the capacity of the pelvis is almost always of such dimensions as to allow

a child of the usual size to pass; that the position of the child is generally such as to be capable of passing by the natural efforts of the mother; that, in the great proportion of cases, the head of the child presents; that in almost every case the disturbed state of the uterus can be speedily corrected; that the great portion of children are born without manual or instrumental aid; that the number of children which require turning, before delivery can be effected, is very small, and there are still fewer in which the capacity of the pelvis is so contracted that a living child cannot pass through it. These, we think, are satisfactory proofs that any barriers which exist to the expulsion of the child by the natural efforts, arise from incidental causes, and had no place in the original determination of Providence. As farther proofs that incidental derangements are the principal causes of delay, suffering, and death, in childbed cases, we have shown that they are generally and certainly curable by the use of appropriate means; and, on the contrary, that when these means are not duly employed, the loss of human life, either of mother or child, is dreadful. Again, in early life, or at any period when there is reason to believe that the bones of the pelvis are in a yielding or softening state, were those means used which are known to be conducive in remedying such complaints, we would seldom hear of a pelvis so contracted as actually to prevent the passage of a living child.

Some may look on these observations with a jealous eye, as trespassing on the doctrine of predestination; but as well might they affirm that Jehovah's decree had gone forth that a certain bacchanalian should continue in his drunken reveries to the day of his death, in order that he might share the eternal fate to which he was, by Divine decree, destined, before he was created; when, in truth, every page of the Divine record, instead of giving information that some are doomed, before they come into existence, to eternal condemnation, calls, in the most affectionate manner, upon all to come and to be saved.

We have thus exhibited, in a manner, we imagine, not to be easily refuted, that the morbid symptoms of the expulsive apparatus during parturition, are but few, and easily recognised; and that the remedial means are safe, well known, and put into effective operation with great facility. And when the whole process is cautiously and observantly conducted in accordance with the existing phenomena, the result will be uniform; or should we fail in this uniformity of result, as far as we have observed, the cause of failure may be accounted for.

In medical science, we have difficulties to encounter, which are not met with in other departments of physics; for in the former there is an apparent want of that uniformity of phenomena which is present in the latter, and which, without intervening aid, is always neces-

sary in order to arrive at uniform results. But the physician, in the prosecution of his professional duties, has the advantage of this spontaneous assistance, the material on which his investigations are made being living matter, nicely organized and arranged in systematic order; and when he can classify the forms of disease to which his attention is directed, so that the principal phenomena may have a near approximation to uniformity, any slight deviation that may be present will frequently be corrected, by that strong disposition in the living system, to correct departures from a state of health.

However difficult it may be to arrive at this desirable approximation of uniformity in the phenomena of disease generally, we trust it has been shown, that in the disturbed state of the uterus during parturition, the uniformity and sameness of the phenomena are such as to enable us to secure uniform results.

In cases of extreme exhaustion from uterine hæmorrhage after the birth of the child, the phenomena are still more uniform than during the continuance of labour pains. For in such cases, no doubt can arise regarding the true state of the patient, a state uniformly present, namely, an extreme general exhaustion. The nervous energy, the vascular action, the muscular motion are stilled; power, and motion, and vital action are lost; every vital and natural function has made a rapid and near approach to lifelessness—

a state that, unless speedily relieved, must, in a very short time, terminate in actual death.

Since, then, we have seen that in all our cases of extreme depression after floodings, recoveries have taken place; that in such cases a uniformity in the principal phenomena is always present; we are therefore bound to believe that the same means of relief, administered under the same circumstances, will be followed by the same effects.

Thus, then, we confidently trust, that the uniformity of our results, in a great number of instances, is sufficient proof, that the number and legitimacy of our facts are amply adequate to establish the position we had in view, the safety, similarity, and efficacy of our mode of treatment.

In conclusion, we consider it proper to state, that the observations we have made on the subject of flooding, comprehend all the cases of this description which have come under our care for upwards of twenty years. On the subject of suspended animation, our observations were neither limited to the number of cases, nor to any particular time.

The 423 cases, then, were principally selected for observation previous to the birth of the child.

CHAPTER V.

APPENDIX TO CASES.

Case 1.—WE insert here the following case as one not attended by us during labour; but, being of great obstinacy and severity, the midwife requested us to see the woman.

Mrs S., aged about 25 years, had enjoyed good health during the greatest part of her pregnancy, but a short time previous to her confinement she had been seized severely with influenza, which induced considerable debility.

The midwife informed us that the woman had been in labour about twenty-eight hours, and that the pains, although inefficacious, had been pretty strong all the time; but during the last twelve hours they had been more frequent and extremely severe.

After learning that so much suffering had already been experienced, we were greatly disappointed, on examination, to find the child's head only beginning to enter at the brim of the pelvis; and that during a pain the expulsive efforts were so feeble as to make it manifest that without a great alteration in the kind of pains, the child would never be expelled by the natural

efforts. The symptoms being distinctly indicative of inflammatory action, and its concomitants, 24 ounces of blood were extracted, and in fifteen minutes afterwards 60 drops of laudanum were exhibited. We waited patiently for an hour after the bleeding and the employment of the laudanum; and as the severity of the pains were not alleviated, nor the child at all farther advanced, other 16 ounces of blood were extracted, and soon afterwards the same quantity of laudanum was repeated. The midwife informed us that the bowels were sufficiently open by the use of two clysters. We now left with the midwife a third dose of laudanum of 60 drops, to be given two hours after the last or second dose, and requested that one or two hours afterwards she would let us know the state of the case. An hour after the third dose of laudanum had been administered, a messenger arrived to inform us that the pains were still extremely violent, and that there was no present prospect of delivery being speedily effected.

We were now apprehensive that it might be necessary both to use the ergot of rye and employ instruments. Before we had time, however, to leave our own house, a second messenger arrived, requesting us to go to the assistance of the woman with all speed, for it was impossible she could long survive. On our arrival, and just before entering the room, the child was expelled.

The child was born alive about four hours and a half after the woman was first bled, and thirty-two hours after the commencement of labour.

When we take into consideration the favourable effects produced in so short a time by the employment of appropriate means, we may safely infer, that if the same means had been used at the termination of the first six hours after the commencement of labour, the woman would not have been more than twelve hours in labour altogether. On the other hand, had she been treated, from the period at which we first saw her, in the usual way in which all authorities pronounce such cases should be managed, the result must have been, even to take the mildest view of it, a distressingly protracted labour, placing the life of both mother and child in great jeopardy.

Case 2.—The following case is given on account of some slight varieties exhibited in it which are very rarely met with.

Mrs H. enjoys tolerable general health, although occasionally she is said to be attacked with slight convulsive fits, which render her weak both in body and mind.

The following labour commenced at nine morning, and we saw her soon afterwards. The pains were sharp and frequent, but produced little effect. At twelve noon the pains continued equally ineffectual, although more severe. A purgative clyster was now

exhibited, which operated freely in a short time afterwards. As soon as the operation of the clyster was over, 60 drops of laudanum were administered, which in a few minutes produced violent and repeated vomiting. It deserves to be particularly remarked, that this is the only case which we have ever met with, in which the laudanum was so soon vomited, or in which it ever produced violent and repeated retching. No change, however, was produced on the pains, and the violence of the vomiting really deterred us for the present from making a second trial. By four o'clock afternoon, the os uteri was well dilated, and the head of the child had considerably advanced into the cavity of the pelvis. The pains continued exceedingly severe, which occasioned some apprehension in our minds that their extreme acuteness might throw the woman into one of her convulsive attacks. About six evening the child was still somewhat advancing, but was not yet within the grasp of the forceps. The pains being still unalleviated, we soaked a piece of cloth with laudanum and introduced it into the rectum, but no change was produced on the pains. The os uteri being now so well dilated, its edges soft and thin, and the head of the child so far advanced into the pelvis, and there being no hardness or pain in the abdomen, even on pressure, we considered the case one well suited for the use of the ergot. The patient being of a peculiarly timid and nervous temperament, she would not permit us to

bleed her, and we were averse to urge it. From the great violence of the pains we were afraid that the excess of sensibility would interfere with the due operation of the ergot, and we ventured to administer 60 drops of laudanum a short time before giving the first half of the ergot. The laudanum now remained on the stomach without any difficulty, and so did the two doses of the ergot. This single dose of laudanum, however, was quite disproportionate to the degree of sensibility, and the excessive pain not being mitigated, the increased expulsive efforts occasioned by the ergot were in a great measure subdued by the increase of pain. One is at some loss how to manage unique cases of this kind, having no precedent; but had we, on finding the second dose of laudanum rest on the stomach, given the third, we entertain no doubt the ergot, if afterwards required at all, would have operated more effectually. As it was, however, the laudanum and ergot improved the pains so far as to bring the head of the child sufficiently low to enable us to apply the forceps, and this was done with great facility, and the woman delivered of an active and healthy child. This woman was delivered with the forceps within twelve hours after the commencement of labour, not from any urgency in the symptoms, but merely as a preventive step, lest the severity of the pains should bring on convulsive symptoms. The course pursued in this case shows that we do not stickle about the

employment of instruments, if the incidental causes really require their application.

The result of this case exhibits, in a very clear light, that the ergot of rye may be given to the parturient woman with perfect safety as regards the child, provided there be no violent obstructing spasmodic contractions of the uterus present; for it is very obvious that the increase of these contractions, by the use of the ergot, interrupts the circulation of the blood through the umbilical cord, by the pressure of the uterus on these vessels. In this case the obstructing cause to delivery does not appear to have been irregular spasmodic contractions, but merely an excess of morbid sensibility acting as a preventive to the expulsive efforts; so that the contractions around the child's body, and on the umbilical vessels, were not increased by the ergot, on account of its only acting by increasing the pain when the expulsive efforts were excited. In this way the child is in perfect safety as regards the operation of the ergot.

Although a case of this kind is very rarely met with, yet it is such cases that should be particularly noticed; for had we had any precedent to show that a second and third dose of laudanum may be given with perfect safety, although the first had excited violent and repeated vomiting, instrumental aid would certainly not have been required in this case. Besides, after deliberation, we are of opinion that should it be

found inadvisable to repeat the laudanum by the mouth, one or two opiate clysters, as practised by Dr Hamilton, would probably assist greatly in relieving the patient. In the use of laudanum per anum, there is not the same certainty as giving it by the mouth, especially when the head of the child is low, for on the first pain coming on after the clyster, most likely some of it will be voided.

We relate the following case to show the disturbed state of the expulsive apparatus when the patient is in a good state of health; and, at the same time, as an instance in which the remedial means acted in the most salutary manner.

Mrs F is of middle age, of healthy constitution, and has born several children. Her former labours have been much varied both in duration and severity.

On this occasion we were sent for about eight morning, and on our arrival we were informed that the patient had experienced considerable pain during the night, but that they did not appear natural or effective till about half an hour before we were sent for. On examination per vaginam, the os uteri was felt to be dilated to the size of half-a-crown, and its edges were not rigid or thick. She said her bowels were quite in an open state, and that during her pregnancy she had enjoyed good health. From all these favourable circumstances we expected a speedy delivery. In this expectation, however, we were greatly disappointed;

for, at the termination of three hours after our arrival, although the pains were much increased in severity, they produced no effect whatever in advancing the child. About one o'clock afternoon, 60 drops of laudanum were administered; and at two, as no improvement had taken place, other 60 drops were given. About an hour after the last laudanum, the pains became more effective, and the head of the child now began to enter at the brim of the pelvis. At four o'clock, the pains were of a very severe and distressing description, yet the child advanced but little. The heat of the patient's skin was now very great—face flushed, pulse sharp, belly hard and pained on pressure—urine passed. The patient was now bled to 24 ounces; and although she had enjoyed so good health, yet the blood on cooling was covered with an unusually thick and dense buffy coat. No alleviation of symptoms followed the bleeding, and the pains were but little improved in efficiency. A clyster was now proposed, but the patient inclined to object to its use, on the score that she was very unable to move, and that her bowels were so freely open every day for a long time past. However, she was easily advised, and the clyster was administered; and in a few minutes afterwards she felt a strong call to stool, when we retired to another room. On our return she informed us that she was quite surprised at the enormous quantity of fæculence she had passed from her bowels;

we examined one of the discharges, which was the smallest, and it was sufficiently copious, although it had been the only one. This circumstance deserves to be particularly noticed; and we believe the bowels will be found very generally in this loaded state, when the labour is of this character. Notwithstanding the employment of all these powerful means, our distressed patient was not relieved from any degree of her sufferings; and half an hour after the clyster had been passed, the third dose of 60 drops of laudanum was exhibited. Soon after this third dose of laudanum the parts became more relaxed, the pains more easily borne, and the child was soon considerably advanced. This agreeable procedure did not long continue; for, before the child was sufficiently low in the pelvis to be grasped by the forceps, the pains again became quite ineffectual and more aggravated. We now resolved on using the ergot of rye, and at the same time we sent for the forceps, determined to relieve our patient if the use of the ergot would advance the child but a little farther. Both doses of ergot were given in half an hour, and both were retained on the stomach.

In little more than half an hour after the second half was administered, the child was expelled under dreadful suffering; yet the extremity of pain seemed to arise principally from excess of sensibility, for the child was born alive and well.

This child was born within twelve hours after our

arrival, and in little more than twelve hours after the patient considered herself really in labour.

No case can well come under the care of any one in which the means could act more advantageously.

At twelve noon we were summoned to attend Mrs B. in labour. She has been several years in a delicate state of health, and at present she is so feeble about the small of her back, and lower extremities, that it is with difficulty she can come out of bed without assistance.

On our arrival at Mrs B.'s, we were informed that labour pains had continued for several hours, although they had not been severe. On examination, the os uteri was found well dilated, and its edges thin and yielding, still the head of the child was only entering at the brim of the pelvis. The patient's skin was cold and of a dark livid tinge, pulse small and soft; she complained of a frequent desire to void urine, but little was passed. The pains continued pretty severe for an hour and a half without at all advancing the child. A stimulating clyster was now exhibited, which, in a short time, operated copiously; and in about twenty minutes afterwards, 60 drops of laudanum were administered. In about half an hour after the clyster and laudanum had been given, the patient became warmer, and the pains were soon greatly improved in efficiency; and the child was born three hours and a half after we had arrived.

In cases of this description, when the woman is cold and listless, and scarcely able to move in bed, there is always a considerable probability that sooner or later after the birth of the child, flooding will occur; and in this case we were fully prepared for such an event. As in every case of labour which we attend, the sudden expulsion of the child by the last pains was resisted by moderate pressure against the head of the child by our hand, in order that the same pains which expelled it might detach the placenta. After the birth of the child, uterine action completely ceased, and although we waited more than half an hour for the return of pains, none occurred. The placenta was felt distinctly, at least partially detached, and lying loose in the uterus, but we were anxious to have it expelled by a return of pain. By causing pressure to be made over the uterus by the hand of an assistant, and at the same time passing our finger up to the placenta, and using gentle efforts to extract it, the uterus contracted feebly, and assisted in the expulsion. On applying the hand to the abdomen now, the uterus felt as if sufficiently contracted, and immediately a firm bandage was applied. For about half an hour after this period, the discharge was not more than natural in quantity, and the patient felt comfortable. All at once, however, she called for drink, began to belch wind from the stomach, and to toss in bed. On examining her pulse now, it was much weaker than it had been a few

minutes before, and the discharge, though unusually copious, was not alarmingly so. But as these appearances were the forerunners of more dreadful symptoms, we instantly gave the patient a drachm of laudanum and a glass of brandy, it being little more than an hour from the former dose, she also, on delivery, having got a small glass of brandy. All the other usual means were at the same moment employed, when the hæmorrhage, with the other disagreeable symptoms, permanently ceased.

We have just given this case as a very good specimen of the method of managing mild cases, and preventing them from becoming tedious, alarming, and dangerous.

The following case must be one of the greatest interest to all who wish well to society, and who have the slightest desire to improve the obstetric art. No case exactly of a similar kind has ever come under our care; and our research, from other authorities, for the information we wanted, was quite nugatory. The case was one, too, in which, during pregnancy, the patient enjoyed a fair state of health, the only remarkable symptom being an urgent thirst in the mornings.

The congestive and inflammatory states of the uterus, were to a degree and of a kind that we have never met with, for they were exceedingly obstinate to yield, and were not accompanied with that degree of excess of sensibility which we usually find in such

cases. In every former case of labour which we had attended from the commencement, in which the disturbed state of uterus was the cause of delay, we never experienced any particular difficulty in improving the labour so far as to bring the child within the grasp of the forceps. But in this case we entirely failed; and in our research for information none was to be found, but the stale and cold advice to perforate the child's head.

Will any one say, then, that the accusation of ignorance or neglect lies on our head? We trust not; for from this very case it is clear that rare instances do occur, in which the disturbed state of the uterus is greater than that which usually occurs to the general practitioner, and, consequently, renders a more energetic mode of practice necessary, than his experience warrants, in order to effect delivery with safety to the child. Surely, then, the nature of such cases should have been long since investigated, and a correct account of them published to the world, by those whose great names and patronage gain for them appointments which afford opportunities so ample, as to bring repeatedly before them every form of labour to which suffering humanity is liable. But when century after century has rolled by, what do we learn on our research for information on this important topic? Why, we only learn, that those who had ample opportunities of observing every form of labour, instead of contem-

plating cases so grave, and devising remedies of relief, have saved their brains at the expense of infantine life ; having no remedy to offer, but that of depriving the hapless babe of existence, by perforating its head.

This case occurred to us also, long after we had finished the 423 cases.

The patient was about 28 or 30 years of age, enjoyed good health during her pregnancy ; and, to the day we were sent for, she could walk with great facility. On our arrival about twelve o'clock at night, we were told that the patient had suffered considerably from pains in the lower part of belly, which she considered labour pains, she being at her full time. On examination, the abdomen over the region of the uterus was harder than natural, and pain was excited by gentle pressure. No other morbid symptom was present, with the exception of considerable thirst. The os uteri was as firmly contracted, as if no pain had existed ; indeed the uncommonly hard and contracted state of the edges of the os uteri rendered the aperture more like a depression than an opening through which any thing was to pass. If our attention had not been directed, about this time, to the consideration of cases somewhat similar, in which authorities considered it necessary to make an artificial outlet for the passage of the child, we would most likely have formed the same opinion in this instance ; but after due deliberation on this subject, we came to the conclusion, that in

every such case, the application of appropriate means would obviate every resistance occasioned by the rigid os uteri. On this score, then, our mind was at once at rest; and, with a view to relaxation, the patient was bled to 20 ounces. Although the orifice made in the vein was sufficiently large, yet the blood only trickled down the arm till the desired quantity was obtained. The blood was of an uncommonly dark colour and thick consistence, and on cooling was covered with a bluish inflammatory-like coat.

Some hours before we arrived, the patient had taken a dose of castor oil, but it had not operated, and in a short time after the bleeding, a purgative clyster was administered which operated copiously. In order to watch the effects of these means, we waited about two hours with the patient; but as no particular change had taken place at the end of this period, we gave her 60 drops of laudanum, and took our leave. We heard no more of our patient till the forenoon of the following day, when we again called. We now learned that she had continued uneasy during the night; and yet, up to this time, little alteration in the pains had taken place, the os uteri was also as rigid as on the preceding night. Other 20 ounces of blood were now taken from the arm, and the castor oil ordered to be repeated. At our visit in the evening, we were told that the pains had continued all day, but that sometimes they were more severe than at any former period. As the oil had

not operated, another clyster was given. On examination now, the os uteri had distinctly begun to dilate. In hopes that the labour would go on progressively, we remained with the patient all night, but in the morning little improvement was made. The blood taken at the second bleeding, although it flowed more freely than at first operation, was still unusually dark coloured. We gave the patient a second dose of laudanum of 60 drops, and again left her. About five afternoon the pains became stronger and more effectual, and in about two hours afterwards the os uteri was well dilated, and the head of the child began to occupy the entrance at the brim of the pelvis. There was still considerable pain on pressure over the uterine region, pulse nearly natural, skin from commencement rather below the natural standard, urine passed easily. Between seven and eight evening, the pains again became as inefficacious as ever they had been, and continued so till about twelve at night, when the patient evidently began to show symptoms of fatigue. The os uteri by this time was well dilated, yet the child's head was high up in the pelvis. Before having recourse to the crotchet, we resolved on making trial of the ergot of rye—not from a well founded hope that it would act favourably, but because it could do nothing worse than the crotchet, and it was another chance afforded the infant. A slight increase of pain was excited, and perhaps a slight advancement of the child

was also effected, but debility made so rapid progress that we sent for a medical friend, and the crotchet was immediately applied. It was not particularly difficult to extract the child. The woman had a slow but perfect recovery.

On this occasion, the gentleman who assisted us gave, as his opinion, that the pelvis was in some measure contracted, but to this opinion we saw no reason to accede.

We stated to him, that from all the symptoms, and from the whole course of the labour—although we had never met with a similar case, and had no precedent to guide us to a more favourable termination—we were of opinion, that had the general bleeding been repeated at a shorter interval, and followed up by the application of one or two dozen of leeches to the abdomen, with laxatives, repeated clysters, and a strict anti-phlogistic regimen, the child might have been delivered by the natural efforts, or at least brought within reach of the forceps. This was the course we intended to pursue, should the woman have another child, and should we be present.

The patient again soon became pregnant. Our assistance could not be obtained, and the gentleman who assisted us was employed. The labour seemingly assumed a similar form to the first; the woman, however, was not so long ill till the child was so situated that the perforator could be applied, and the operation

was at once performed. No means were used to obviate the causes which appeared to us to protract delivery in the former labour. The gentleman, with his very able and extensively experienced assistant, acted on the grounds that the pelvis was so narrowed, that a living child at the full time could not pass. The woman soon recovered and became pregnant a third time. Labour came on, or rather was brought on, at the eighth month, on the presumption that the pelvis was narrowed. In a few hours after the commencement of labour, the child was advanced so far as to be within reach of the forceps, when the expulsive efforts of the uterus entirely ceased.

We now saw the case; the uterine efforts were as inefficient as at the first labour. The patient was bled, had a clyster, and 60 drops of laudanum were administered by the mouth; the pains continued nearly in the same state for an hour after the use of these means, then they suddenly began to improve, and the child was expelled alive in a short time afterwards. We, with other gentlemen present, had now an opportunity of carefully examining this woman's pelvis, and we were very happy in being fully borne out in the opinion we had first formed, that the pelvis was sufficiently ample to allow the passage of a full grown child, and that the obstructing causes arose entirely from a morbid condition of the expulsive apparatus.

Now, we consider ourselves in duty bound to ques-

tion the conduct of these gentlemen in the course they pursued in the management of the second labour. They had this advantage over us, in our attendance on the preceding occasion, that they knew in their own instance what they might expect, provided the gentleman who assisted us was correct in the opinion he formed regarding the contraction of the pelvis. They had also the advantage of the opinion we formed regarding the nature of the case; and however lightly they might feel inclined to estimate that opinion, still it deserved particular regard, having for its object the preservation of the child's life. These gentlemen, however, have strong mitigating circumstances in their favour, namely, that they followed the routine course approved and practised by the great leading authorities of the day.

Mrs W. requested us to attend her in labour. She has had several children, and during her pregnancy at this time her health has been considerably impaired. When we arrived at Mrs W.'s house, she informed us that she had been two days suffering under spurious pains, which only assumed a more natural form a few hours before we were sent for. The patient had taken castor oil which operated well. The pains at our arrival continued frequent and severe; there was particularly very acute pain in the left side of the uterine region. On examination per vaginam, the os uteri was found considerably dilated, and its edges

flaccid and thin, yet the head of the child had only begun to occupy the entrance of the pelvis. After waiting about half an hour, and the pains continuing severe and ineffective, 60 drops of laudanum were administered. This dose of laudanum had no effect in mitigating the severity of the pains, nor in improving their character, but the sickness at stomach, occasioned by the laudanum, was so great that it could not be repeated, without exciting vomiting, for two hours after the first dose had been given. At the end of this period, as no vomiting came on, and as the pains were still of the same description, a second dose, of 60 drops of laudanum, was now given. An hour after this last dose, the only difference in the case was, that the patient became somewhat drowsy; the pains being still extremely acute and ineffective. A stimulating clyster was now administered, which in a short time operated well. Two hours after the second dose of laudanum, the change produced upon the labour was but little, and the patient began to complain grievously of the severity of the pains. The third dose of laudanum, of 60 drops, was now administered; still, for more than an hour afterwards, the child made but slow progress through the pelvis. By the effects of the laudanum, however, the patient fell into short sleeps, and she complained very much of the giddiness which laudanum often occasions.

As the patient had passed no urine for several hours, we now endeavoured to place her on the pan, partially

filled with warm water. She had not been long in this position till a pretty severe pain came on; which advanced the child so far as to begin to dilate the external parts of the mother; when she was immediately put to bed, and the child was born in about twenty minutes afterwards, and six hours and a half after our arrival. The child was weak, but soon recovered.

On a former occasion this woman, soon after the birth of her child, was seized with profuse hæmorrhage, and on this occasion she felt greatly alarmed lest she should be similarly attacked; but as we very seldom meet with profuse floodings after labours in which the full quantity of laudanum has been administered, we anticipated little danger, from such an event; although, from the nature of the labour, there was room for suspicion.

On examination after the child was removed from the mother, the placenta was found lying loose in the vagina, and in a few minutes it was slowly removed. The uterus was now felt pretty firmly contracted, yet, in a few minutes, an unusual gush of blood was discharged from the vagina; but it as quickly ceased, without producing any particular weakness, and the woman was bound up and laid dry. In less than half an hour, however, the discharge increased considerably, which weakened the pulse and paled the face; but, by the application of cold and diminishing the bedclothes, it again nearly ceased, when we fully expected it would

give no farther trouble. On examining the uterus above the pubis, it was still contracted to a small size, and felt firm. In a few minutes the hæmorrhage returned with increased violence, producing rather alarming symptoms of weakness. After the birth of the child, the patient got a glassful of brandy, and now other two glassfuls were exhibited, to the last of which 40 drops of laudanum were added.

We now introduced our hand into the vagina, in which was a considerable quantity of clotted blood, and on advancing the hand to the os uteri, it was also filled with a clot; but being contracted to about the size of half-a-crown, and the uterus being also well contracted, and little coagula within its cavity, we did not push our hand farther. Although all this manipulation was accomplished in a very short time, yet, before we had finished, the husband exclaimed that his wife was dead; when we instantly removed the clot from the os uteri, and withdrew our hand, bringing along with it all the coagula in the vagina. She complained exceedingly on the introduction of the hand, but before withdrawing it she was nearly speechless and senseless. Another glass of brandy was now given, and cold freely applied by cloths wrung out of cold water; the hæmorrhage now finally ceased, and in a short time, dry and warm cloths were put about her. She recovered rapidly.

At the succeeding labour, this woman was in a more

delicate state of health; her labour was easier and shorter, yet flooding came on, and continued in a similar manner as on the former occasion; but the vagina was cleared of coagula at an earlier period, and the discharge did not continue so long. She also recovered rapidly. If we had, in the first attack, kept our hand long in the vagina, or introduced it into the uterus, and retained it there, as is generally done, our patient would have been in greater danger.

Mrs M. sent for us at nine morning, to attend her in labour, which she considered had commenced. Mrs M. has been in a weakly state during her pregnancy, but not by any means confined to bed. About two weeks ago, she was bled to about 12 ounces, to relieve a sense of weight and uneasiness in the region of the uterus. The blood on cooling was covered with a dense buffy coat. At this time she expected to go at least a month longer; and the child when born, certainly indicated that it was somewhat before the time. The membranes had broken early in the morning, but the pains were very trifling till a short time before we were summoned to attend. On our arrival the pains were regular, but not strong; the os uteri was well dilated and relaxed, but the head of the child had only begun to occupy the inlet of the pelvis. The pains continued, and rapidly improved in efficiency, and the child was born at half past ten—an hour and a half after our arrival. As soon as the head and body

of the child were expelled, the labour pains immediately ceased, so that the breech and lower extremities remained undelivered. As Mrs M. is subject to hæmorrhage after the birth of the child, we waited patiently for a return of uterine pains to expel the extremities, but no pains returned; and, at the end of fifteen minutes, the child, by its own efforts, glided out of the vagina. By this time a considerable sheet of blood covered the bed where she lay, and the discharge still continued more profuse than natural; but the patient did not experience any particular weakness, and the pulse kept good. In a few minutes longer the hæmorrhage increased, and the patient began to feel weak; on applying the hand over the region of the uterus, this organ felt contracted, but it communicated a doughy feeling to the hand. A drachm and a half of laudanum were now given to the patient, and immediately followed by a glass and a half of brandy. The hand was now introduced into the uterus, for the purpose of removing the placenta; and it is rather surprising, that although the woman was neither very weak, nor the hæmorrhage very profuse, yet the uterus scarcely offered any resistance to the introduction of the hand into its cavity. The stricture or ring, spoken of by Dr Burns, above the cervix, was quite distinguishable, but the hand passed through it with great facility; the other portion of the uterus was perfectly flaccid, and the presence of the

hand had no effect in exciting it into action. Even in our endeavours to separate the placenta, the viscus was not roused, until the former was detached, and the hand placed behind it and the coagula, for the purpose of removing them, and when in the act of withdrawing the hand, the uterus contracted, and expelled its contents along with the hand.

After the removal of the uterine contents, the patient recruited considerably; yet the discharge continued more than usually great after the removal of the placenta, and the uterus, though contracted, felt softer than natural. The patient again became weak, and as the discharge continued, we again introduced the hand into the uterus. The quantity of coagula in its cavity was now very small, but the vagina was completely stuffed with clotted blood. The hand was placed behind the whole grumous mass, and on withdrawing it, the uterus contracted and assisted in the expulsion of the contents. For a short time the discharge now almost entirely ceased, and the woman revived considerably; but in about fifteen minutes, it again increased, when the patient, though not pulseless, was apparently sinking. Previous to this period, she had swallowed four glassfuls of brandy, and she now got the fifth.

The belly continued soft and undistended, and to the touch the uterus seemed pretty firmly contracted; yet, in less than half an hour after the uterus and

vagina had been last emptied of coagula, we deemed it advisable to re-introduce the hand into the vagina, in which again there was a considerable quantity of clotted blood; the os uteri was nearly closed, but contained within it a small plug of coagulated blood; this and that in the vagina we removed.

Although the body by this time was well cooled by the free admission of cold air, and the frequent application of cloths wet with cold water, yet the vagina felt uncommonly hot. For the purpose of cooling this internal cavity with the greatest rapidity and facility, we introduced our hand, made quite cold in a basin of cold water, and as soon as it became warm, it was again cooled and re-introduced, until the parts up to the os uteri became quite cool. Every time the hand was withdrawn for the purpose of cooling it, any coagula that had formed were removed. The discharge now permanently ceased, and the woman fell into short but easy sleeps.

In this case there was no particular necessity for introducing the hand into the uterus the second time, as the viscus was pretty well contracted, and contained but little clotted blood; the principal object in such cases, where the uterus is found well contracted, is to empty the vagina, and prevent the coagula from re-accumulating in it by the frequent introduction of the cold hand, so as to cool down the temperature and remove coagula.

This we consider a very useful part of the treatment, and the easiest way to apply cold internally; for all that is necessary to be done is to introduce the hand to about the length of the fingers which gives no pain whatever to the patient, and answers every purpose. If we had adopted this plan in Mrs W.'s case, we believe the accumulation of coagula in the vagina would have been sooner checked.

We only required to remain with Mrs M. two hours after delivery. She had not a bad symptom afterwards.

In the *London Medico-Chirurgical Review*, for October, 1838, there is a Report, by Dr Churchill, of the Dublin Western Lying-in Hospital, from 1st November, 1836, to 31st December, 1837—number of cases (exclusive of abortions), 369. Number of children, 376, being seven twin cases; 28 of these children were still-born or died an hour or two after birth. One crotchet case. Three women died. In 299 cases, the duration of labour was accurately noted. In 65 cases it was under six hours; in 93 cases it was under twelve hours; in 105 cases, under twenty-four hours; in 18 cases, under thirty-six hours; in 7 cases, under forty-eight hours; 5 under sixty; 5 under ninety-six; and one under one hundred and twenty hours.

Dr Churchill states, "So far as the series of facts I

have just presented extend, they are in direct opposition to the recorded opinions of Professor Hamilton," &c. Again he states, "As for poor Professor Hamilton, he must now be accustomed to seeing facts *versus* his dogmatic assertions. But he has run a muck at every body so often, that he is looked on by all as an accoucheur-Quixote."

This Report of Dr Churchill's, so late as 1837, exhibits in the strongest light the urgent necessity that still exists for all those concerned, directly and indirectly, with childbearing women to make an appeal to the humane and benevolent, for the purpose of instituting an inquiry into the causes which render so many cases of labour so fearfully protracted, and accompanied with so much loss of life.

In this Report, out of 369 births there are 28 children still-born, or that died one or two hours after birth. In 299 cases of labour accurately noted, no less than 141 extended from about twenty-four hours to one hundred and twenty hours.

We may just repeat, that in the 423 cases of labour formerly noticed, only two of them extended to about fourteen hours' duration, several of the remainder, equally severe, terminated in about twelve hours, but the great portion of these, even of great severity, was much within this period; that only one child was still-born, and none died one or two hours after birth.

The public is certainly obliged to Dr Churchill, or any accoucheur who so boldly and fearlessly acquaints the world with his mode and result of procedure ; but we certainly think he has made an attack on Professor Hamilton of Edinburgh, not by any means called for. The topic which Dr C. takes up with so much parade, appears to us, at least, to be of comparative indifference ; it is one too to which we have paid very little attention, our object being always to accelerate, in a safe manner, every stage of labour. So far, however, we can speak positively, that the means used by Dr Hamilton for the purpose of accelerating the first stage of labour, are assuredly advantageous for that purpose. We have hinted, in the foregoing observations, that Dr Hamilton is the first accoucheur, so far as we know, that has suggested the possibility of bringing certain forms of labour to a termination within a given period ; but as his mode of treatment appears to us defective, and his period of duration too long, we have no intention of testing the accuracy of his statement ; however, his suggestion is certainly one of merit, of which none has a right to deprive him.

We beg to state that our observations on the 423 cases which we have already noticed, were finished long before we saw Dr Hamilton's statement, indeed a considerable time before they were published.

Now, if Dr Churchill had taken up Dr Hamilton's practice, and shown us distinctly how far it was defec-

tive or efficacious in shortening the duration of labours, we should have been the first to approve of such conduct; but from the course he has pursued, it shows clearly that he thinks and acts in a similar manner with that very accomplished and zealous accoucheur, Dr Collins, who seems to use few or no means for the acceleration of labour. Such an attack then, and such a course of proceeding, militate against improvement, and should not be tacitly passed over.

Thus we have stated our views and procedure of the various departments of practice to which our attention has been directed, with perfect independence as regards the consequences to ourselves. All we seriously request is, that the observations be read and studied by all, and we fear not that they will be acted on.

THE END.





